"Providing new Technology and
Concept for Scientific World"

Korea Scientific Instruments Industry Cooperative

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2007/2008 SCIENTIFIC INSTRUMENTS OF KOREA Korea Scientific Instruments Industry Cooperative

2007/2008

Scientific Instruments of Korea

Korea Scientific Instruments Industry Cooperative

From President

The world of today and tomorrow has one predominant characteristic “CHANGE!” And whenever there is change, one must be able to adapt to the change. One must be able to sense and clarify problem, as well as find solutions to those problems.

On this directory, I am confidence that it must help to solve those problems. It’s make with a view to gives to you and your customer more information about Korea scientific product. So we listed only good quality scientific instruments, laboratory equipments and Vocational training program that developed by our member companies.

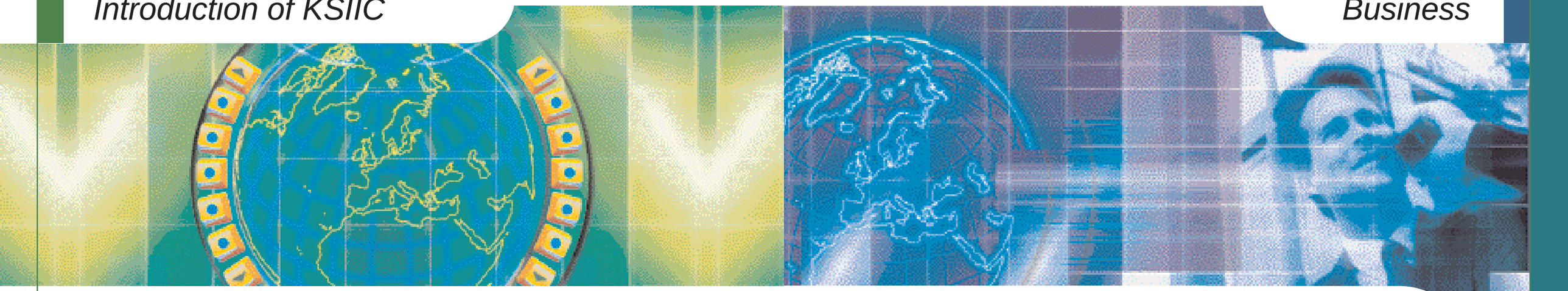
We, Korea ScientificInstruments Industry Cooperative(KSIIC) and our member companies, have been making every effort for 20 years to improve product quality and develop new & high-tech products. As a result, we achieved remarkable quality improvement and gained public favors in the international market.

Hoping to your interesting in us, we promise to do our best for supply you with better quality product with good service.

Sincerely yours,

Yoon Sik Hong

President



KSIIC

KSIIC was established in 1984 as a special legal entity under Small and Medium Business Administration of Korean government. Its more than 250 members are manufacturing educational materials, scientific analysis instruments, and technical training equipment.

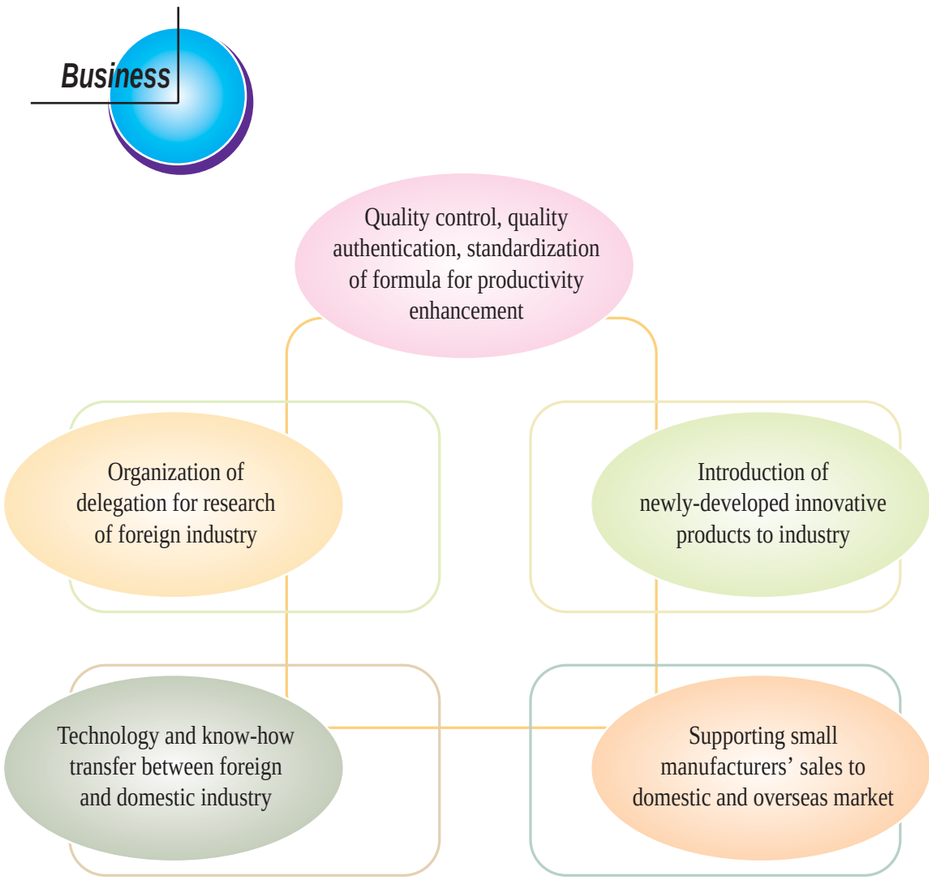
KSIIC and its members are dedicated to supply quality products to customers in Korea and foreign countries. By supplying newly developed products, KSIIC's member companies are contributing to improvement of education, test and analysis activities of schools, laboratories and relevant industry.

KSIIC is organizing exhibitions in Korea and participating at international exhibitions to promote foreign trading and transfer technology . We also lead trade delegations to visit various places of the world.

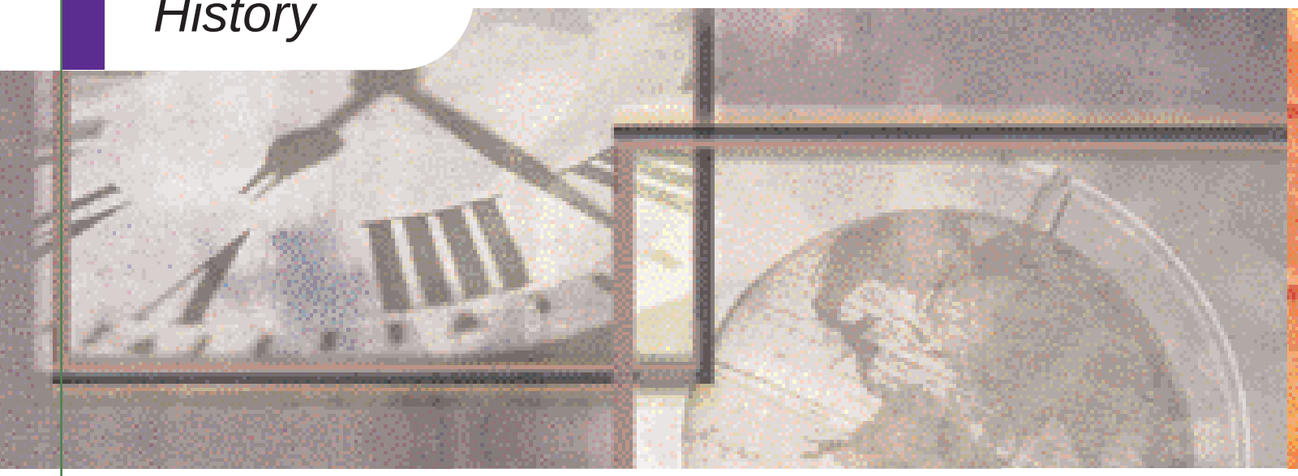
KSIIC hopes to join international efforts to enhance human standard of living by means of providing new technology and concept for students, teachers, trainers, and scientists.

We welcome any proposal to exchange creative ideas and information for mutual prospertiy.

Korea Scientific Instruments Industry Cooperative (KSIIC)

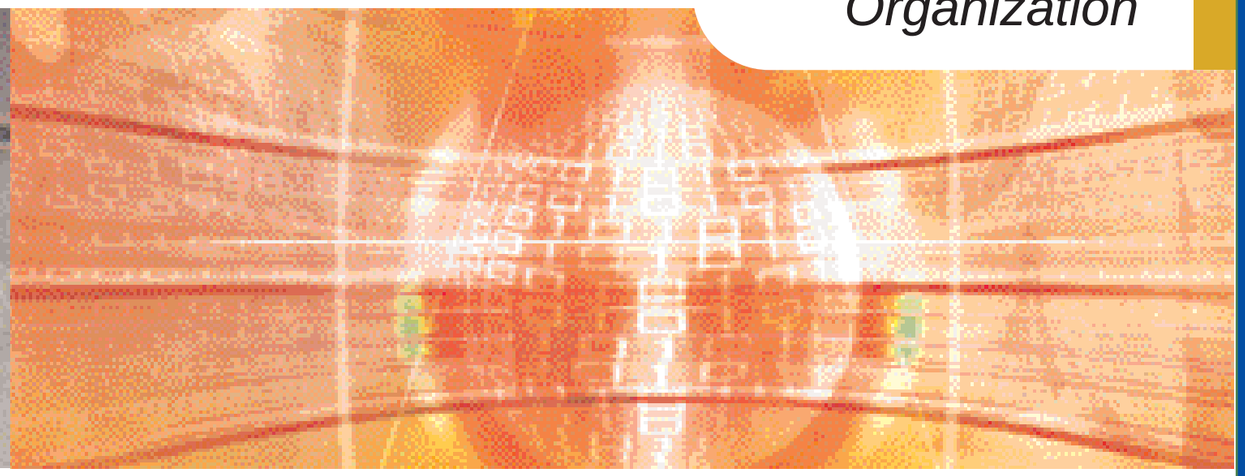

Business
Quality control, quality authentication, standardization of formula for productivity enhancement
Organization of delegation for research of foreign industry
Introduction of newly-developed innovative products to industry
Technology and know-how transfer between foreign and domestic industry
Supporting small manufacturers' sales to domestic and overseas market

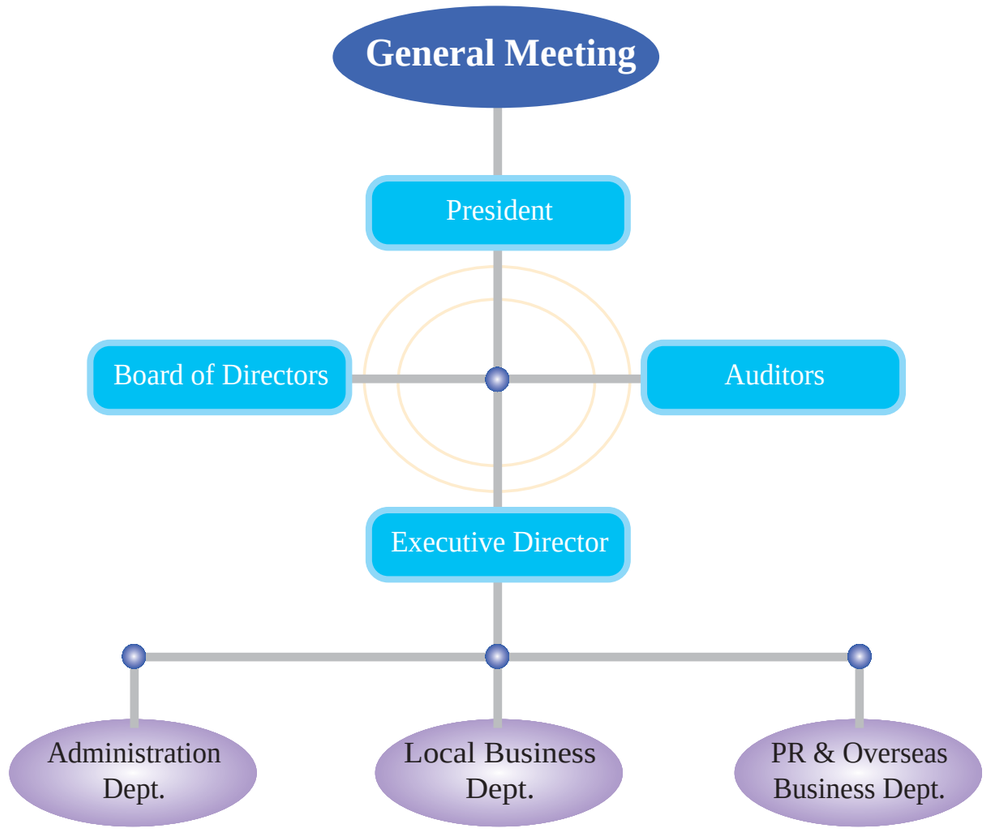
History



1984	Establishment of Korea Scientific Instruments Industry Cooperative
1987	Appointed as Quality Inspection Institution by Industrial Avancement Administration of Korea
1988	Acquired Export-Import License from Seoul City
1991	Designated as a supplier of Military Equipment by Korean government
1992	Opened the 1st International Scientific Instruments Exhibition at Seoul, Korea.
1992	Awarded as the Best Cooperative from Korean the President
1998	Established Institute of Scientific Instruments inside KSIIC
2005	KOSIS 2005 (Korea Scientific Instruments Show 2005) was held in May

Organization





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Contents

1 Basic Scientific Devices

DAE RYUK SCIENCE CO.
JIN HEUNG SCIENTIFIC CO.
KOREA DIGITAL CO., LTD.
KYUNGIN SCIENCE CO.
SCIENCE PARK
SE GYE SCIENTIFIC CO., LTD
SUNDOO INDUSTRY CO.
SHINHAN BIOLOGICAL SPECIMEN
SHINIL CORPORATION
HANSOL EDUCATION CO., LTD.

2 Video Education Resources

OMAX CO., LTD.
TOPEX CORP.

3 Language Laboratory System

ORIENT AV CO., LTD.

4 Laboratory Equipments

General Laboratory Instruments
BIOCRYOS CO., LTD.
DAIHAN SCIENTIFIC CO., LTD.
DASOL SCIENTIFIC CO., LTD.
HUMAN CORPORATION
ILSHINLAB CO., LTD.
JISICO CO., LTD.
LABZONE CO., LTD.
MIRAE ST CO., LTD.
SINSAENG INSTRUMENTS CO., LTD.
UNIVERSAL SCIENTIFIC CO., LTD.

Test and Analysis Device
G-WON HITECH CO., LTD.
ISTEK, INC.
MECASYS CO., LTD.

Lab Furniture & Fluid Science
EUNHA FLUID SCIENCE
CHC LABORATORY CO., LTD.
THREE SHINE INC.

5 Machinery and Automobile Education

DAE SUNG G-3 CO., LTD
WOOSUNG E&I CO., LTD.

6 Electric & Electronic Measuring Device, Automatic Control

AD POWER CO., LTD.
C&C INSTRUMENTS CO., LTD.
CHUNGPA EMT CO., LTD.
KOREA DIGITAL CO., LTD.
MIDAS ENGINEERING CO., LTD.
ED CO., LTD.
FESTECH CO., LTD.
H.I SYSTEM CO., LTD.

DR-117 Lens Set

FEATURE

- Easily teaching, It Can attached to magnetic blackboard

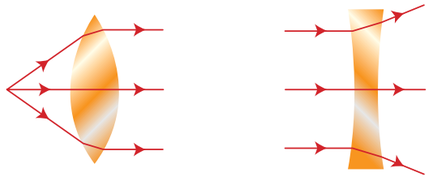
SPECIFICATION

- 1 set for 10 kind (for magnetic blackboard)
- 360 degree angle panel, right angle flat mirror, half circle convex lens, triangle prism, concave lens, convex mirror, concave mirror, half convex lens, half concave lens

DR-110 Slit Laser Point

FEATURE

Made using slit then easily look on light way. Various lens, water bath, prism include. And also you can attach to magnetic black board.



Convex Lens Can gethering Light, Concave Lens Can Spray Light.

DR-102 Light Composition Testing Equipment

FEATURE

- Three light emitting devices are installed with each device radiating 3 primary colors into the screen. Position and brightness of each color light can be adjusted easily to create various colors thus helping to understand the phenomenon.

SPECIFICATION

- 320 × 200 × 215mm (W×D×H)

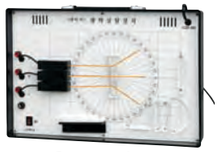
HOW TO USE

- Connect the power cable. Adjust the distance between screen and light emitting devices in order to maintain clear colors.
- Creating mixed colors is convenient if you adjust to the order of red, green and blue color at the brightest mode.
- Light emitting devices can move up and down and right-to-left.

DAE RYUK SCIENCE CO.

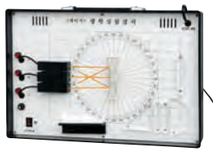
DR-108 Laser Optical Experiment Device

Convex Lens

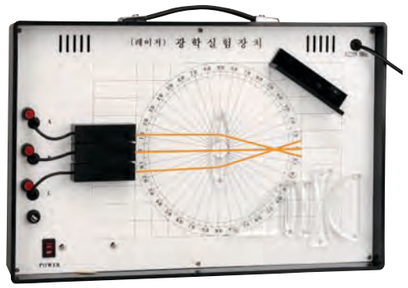


Concave Lens

Flat Mirror



Concave Mirror



FEATURE

- Composed to be easy to understand for experts and novices. The laser can always maintain bright light taking advantage of AC even when battery is changed. And the screen coated with special material supports the brightness of light. The screen can stay standing or laid due to its magnetic characteristic. Neonium magnet is attached at the back of the screen for the magnetic function.

SPECIFICATION

- 440 × 290 × 70mm (W×D×H)

HOW TO USE

- Convex Lens (two kinds), Concave Lens (two kinds), Flat mirror, Total reflection prism, Three laser sets

DR-109 Water Bottle For Optical Studies

FEATURE

- Devised to turn 290 degrees for minute and dynamic observation of light refraction. Permanently bright light is supplied by electricity to get rid of inconvenience of laser battery change. Light is cleary visible thanks to the special coating at screen face of water bottle.

SPECIFICATION

- Water bottle, Laser, Power supply

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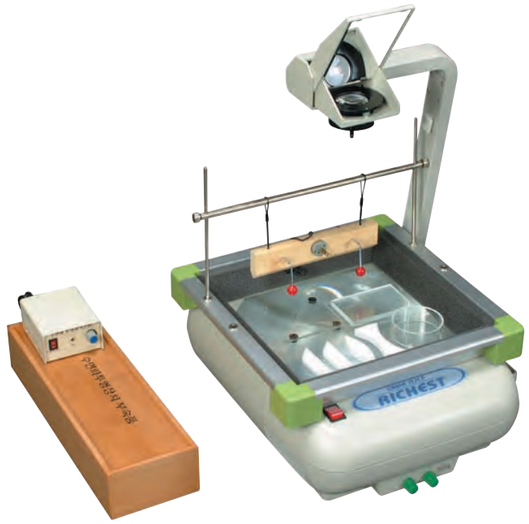
DR-106

SurfaceWave Projecting Device For OHP



FEATURE

- Made to be convenient for teaching many students by projecting to screen putting small unit on OHP.

HOW TO USE

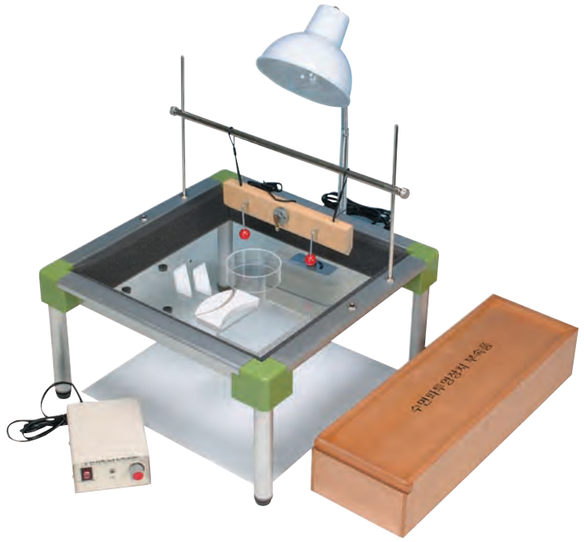
1. Do experiment after in put water to (1m - 1.5cm)
2. Controlled vibration with voltage control.
3. Sponge should be enough drinks water.

SPECIFICATION

- 400 × 400 × 50mm (W × D × H)
- Storage case, power supply, vibration motor panel, 2 support pole, horizontal pole, Triangle panel, circle, convex lens concave lens, 2 slit panels.

DR-112

Mini Surface Wave Projecting Device



FEATURE

- Portable, easy to assemble and disassemble thanks to its small size. Can be also use for OHP. The device can adjust surface level and change generation position of surface wave. Reflective wave will not occur at the wall of water tank.

HOW TO USE

1. Do experiment after in put water to (1m - 1.5cm)
2. Controlled vibration with voltage control.
3. Sponge should be enough drinks water.

SPECIFICATION

- 400 × 400 × 230mm (W × D × H)
- Storage case, power supply, vibration motor panel, 2 support pole, horizontal pole, Triangle panel, circle, convex lens concave lens, 2 slit panels.

DAE RYUK SCIENCE CO.

DR-111

Sound Wave Monitoring Device

FEATURE

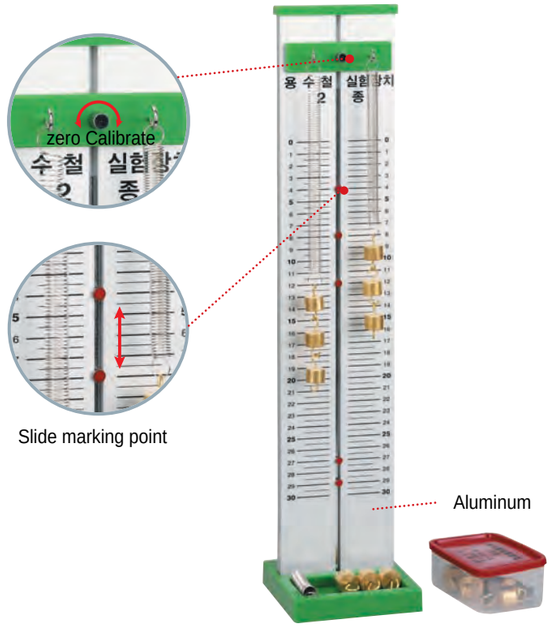
- The sound wave is converted through a microphone into visible electric signal. Thus, all the sound around can be observed in the form of accurate wave and amplitude.

SPECIFICATION

- Braun tube : 12 ″
- Power : AC 100 ~ 240V / 40W (Free voltage)
- Dimension : 305 × 300mm (W × D × H)
- Weight : 7.50 kg

DR-107

Spring Tester



FEATURE

- Able to know the property of spring
- Able to teat correctly as it is no beginning tensile strength
- Has a slid point that indicates test point
- Able to test the property of spring by using the other 2 springs which have same wire thickness with different diameter.
- Control ‘Zero point’ hooking a spring on the main body.
- To minimize error, use large diameter of spring for 20g and small diameter of spring for 20g

SPECIFICATION

- Parts: Balance weight 20g × 5 ea, 30g × 3 ea
- Spring (2 kinds), Slide point
- Material: aluminum

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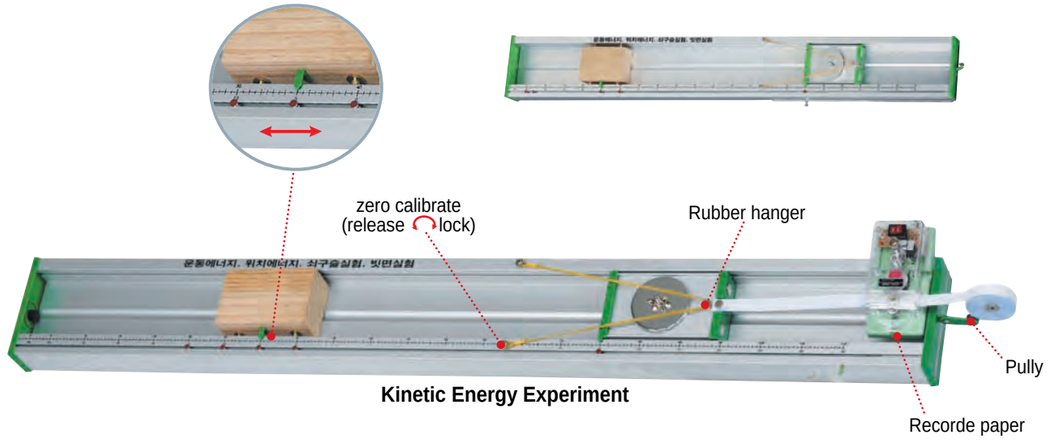
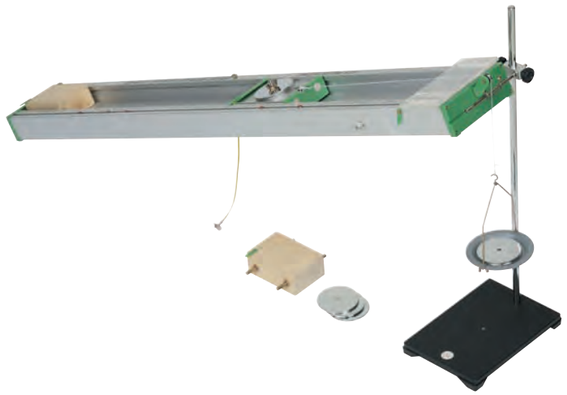
DR-115 Kinetic, Potential Energy Tester



Kinetic Energy Experiment



FEATURE

- Minimized friction to correctly measure motion energy.
- Able to control velocity according to cart backward motion distance.
- Has a slide point for motion distance measurement.
- Has motion distance scale of objects and cart (mass) respectively.
- Able to control the tilt of side by setting the height of iron stand.
- Able to control mass by putting a balance weight on the cart.

SPECIFICATION

- Size: rail 1200 × 140 × 50(W × D × H)
- Object, Cart, Balance weight (100g), Timer stand, Vessel, Angle controller, Iron bead, Slide point

DR-114 Dynamic Cart

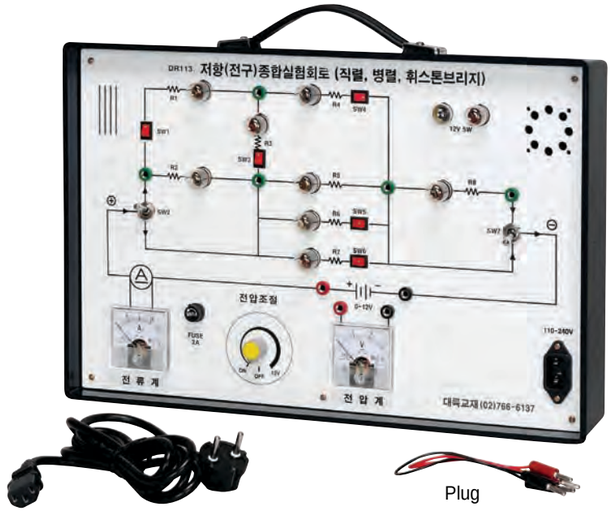
FEATURE

Premium cart, Strong magnetic install in front and back panel in order to more convener experiment

SPECIFICATION

- Size: rail 150 × 100 × 40(W × D × H)
- Cart 1set, pull 100g ×4 spring device, 8 Neodymium magnetic, record paper fixed hole.

DR-113 Electric Resistance Experiment Circuit



FEATURE

- Made to enhance understanding basic knowledge of electricity by substituting electric bulb for traditional resistor. By adjusting brightness of the bulb, various kinds of circuit can be composed for observation of voltage and flow of electricity.

DIMENSION

- 440 × 290 × 70mm (W × D × H)

PACKAGE CONTENTS

- Lamp 10 units, Manual, Power cable, Plug with cable (Two sets)

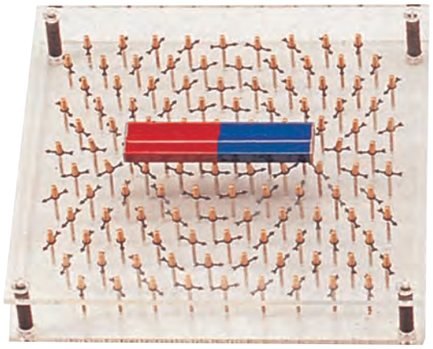
WEIGHT

- 2.1kg

HOW TO USE

1. put in a power cable
2. Through the control switch can experiment circuit.
3. More detail indicate on include user manual

DR-139 Magnetic Needle Observation Panel



FEATURE

- It can be observation for magnetic field. And can showing large screen by OHP and Video presenter. If you closed magnetic then you can see the shape for magnetic field by all needles at once.

SPECIFICATION

- 150 × 150 × 25cm needle 108, 1 Alnico magnetic

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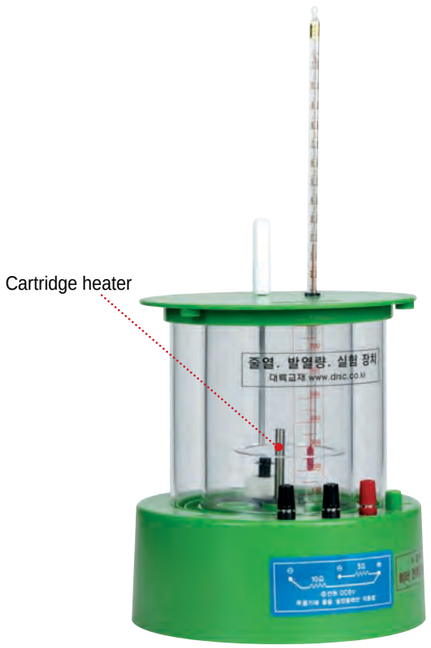
DR-131 Joule's Heat, Exothermic Reaction Apparatus



FEATURE

- A flow of electricity reached to Nichrome wire. It changed heating energy.
  This apparatus made of cartridge heater then keep electric resistance in the water.
  No rust and conductor error even long term using. It has transparency vessel for inside seeing.

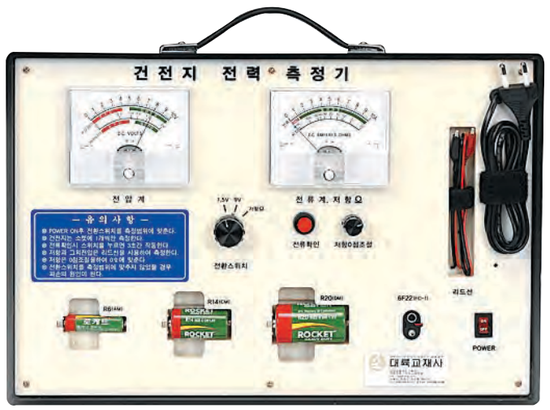
SPECIFICATION

- 5Ω, 10Ω (Voltage 6~9V)

HOW TO USE

1. It can't experiment for safe without water
2. Put in the water to level meter
3. Stirrer is up and down move to mix

DR-122 Battery Voltage Measuring Apparatus



FEATURE

- Battery Voltage measuring apparatus
  Battery has constant voltage and ampere. This apparatus made for rapidly and correctly knows to voltage, ampere, and resistance.
  For good power is green lamp appear. Low power is red lamp

SPECIFICATION

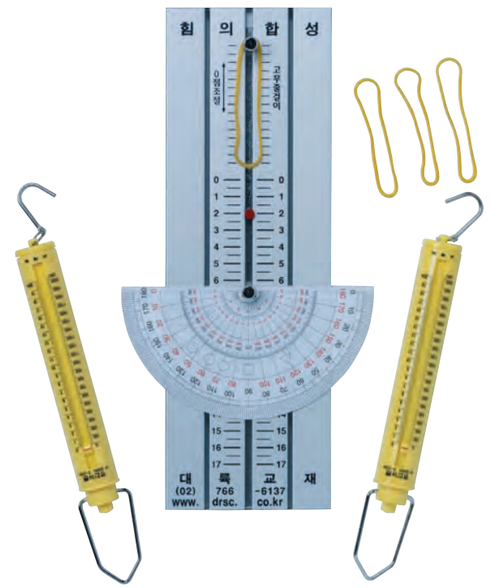
- 440 × 290 × 70mm

HOW TO USE

1. You can change calibrate range after power on
2. One by one measuring battery
3. 3 second light on when you check the ampere
4. You can use lead wire for resistance and other test
5. Resistance must fix zero Ω with zero calibrate
6. There is broken factor if you don't change the range for calibrate

DAE RYUK SCIENCE CO.

DR-129 Composition of Forces



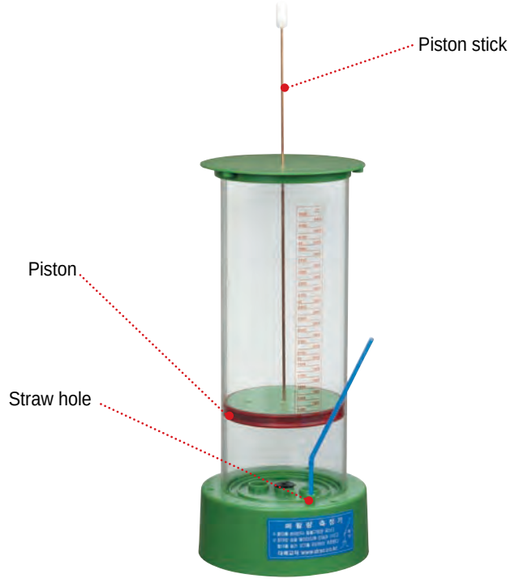
FEATURE

- There is slide hole and rubber band hanger for control of range in center of rectangle panel. The rubber hand is general rubber band. The slide angle protractor can move other.

SPECIFICATION

- 300 × 400 × 18mm

DR-130 Breathing Capacity Meter



FEATURE

- How much air comes in and out when we breathe? And how much air largest we can breath? Let see using for breathing capacity meter.

SPECIFICATION

- Ø190 × 370㎜

HOW TO USE

1. Piston stick to bottom to pushed handle
2. Blow the straw then piston is rise up
3. 1 person 1 straw for keeps your health

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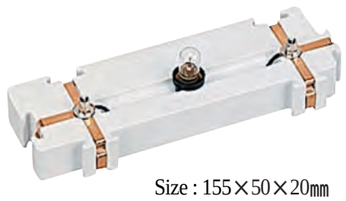
DR-118

Bulb Resistonce Panel Lego Style



Size : 155×50×20㎜

DR-126

Fuse Lego Style

Size : 155×50×20㎜

DR-125

Buzzer Legostyle

Size : 155×50×20㎜

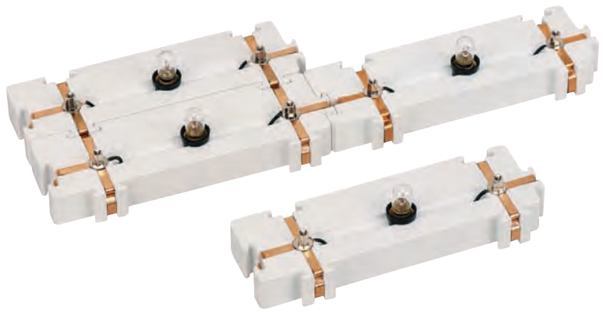
DR-127

Battery Socket Legostyle

Size : 155×50×20㎜

DR-142

Bulb Resistance Panel



FEATURE

- Able to connect bulb resistance panel with series or parallel or and series/parallel (mix) circuit without wire pincers.
- For series connection, push downward to fit into panel, fixing one on the plane and the other on the groove.

SPECIFICATION

- Size: 155 *50*20(W*D*H)
- 4 ea(set) of 3V(exchangeable for 1.5V. 6V, 9V)

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DR-124

Motor Lego Style

Size : 155×50×20㎜

DR-124

Switch Lego Style

Size : 155×50×20㎜

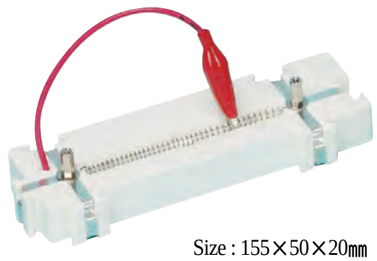
DR-119

Nichrome Wire Resistance Panel

Size : 155×50×20㎜

DR-128

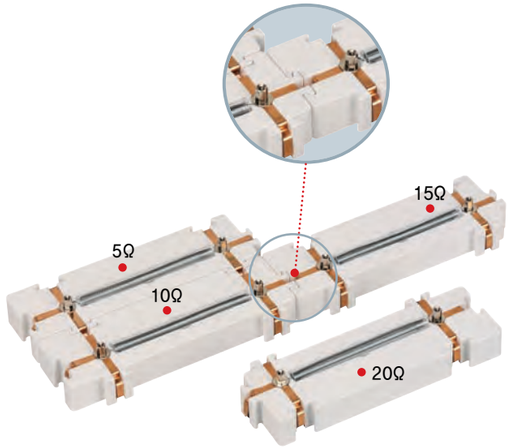
Variable Resistance Panel



Size : 155×50×20㎜

DR-141

Nichrome wire resistance panel



FEATURE

- Able to know electric current and resistance
- Able to connect bulb resistance panel with series or parallel or and series/parallel (mix) circuit without wire pincers.
- Protected from heat damage of Nichrome wire during the test, as it is used strong heat resistance main body and glass.
- For series connection, push downward to fit into panel, fixing one on the plane and the other on the groove.

SPECIFICATION

- Size: 155 × 50 × 20(W × D × H)
- 4 pcs(set) of 10

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Jhp-1500, 3000

Power Supply

FEATURE

- Equipment that converts general AC electric power into DC electric power
- Installed the circuit of constant voltage and electric current controller to protect over electric current or over load.

Model	Mode	Input	Output
Jhp-1500	Needle indicator V,A meter	AC220V60Hz	15V/5A
Jhp-1500A	Digital V,A meter	AC220V60Hz	15V/5A
Jhp-3000	Needle indicator V,A meter	AC220V60Hz	30V3A
Jhp-3000A	Digital V,A meter	AC220V60Hz	30V3A

Jh-9900, 10000

Time Recorder

FEATURE

- Used for the measurement of acceleration and deceleration of moving objects. This recorder marks with dot on the record paper vibrating regularly. The gap of dot is made by the speed of record paper.

- Conduction 80x135x40mm
- AC 220V 60Hz.
- Record time: 10,20,50,60,100 dots

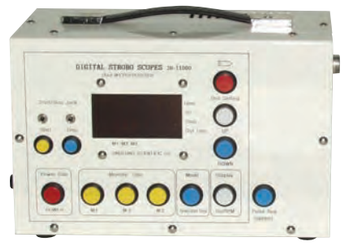
- Marking dot is clear and there is no noise as it is electric conduction type.
- The time of marking dot is precise as it is set up a standard time by 8-bit micro processor (Class 0.001%).
- Able to select 'Fast movement' or 'Slow movement' by the optional setting of record time.
- Measurement error is minimized, as tape friction is small.
- Easy to taping.
- Able to measure variously with various fix methods.

Model	Record	Dot-marking time	Power	Class	Tape	Type
Jh-9900	Conduction	10,20,50,60,100hz	AC 220V	1/10000	Conduction paper	Micro 8bit
Jh-10000	Dot-marking	60hz	AC 220V	1/60	Self paper	Magnet

JIN HEUNG SCIENTIFIC CO.

Jh-11000

Digital Stroboscope



FEATURE

- Xetone output 20W, 60~15,120rpm
- Used for taking a picture speedy stop motion like falling motion, uniform motion, and etc. or for measuring the speed of revolution.
- Classified into union set and disunion set.
- Controlled by digital up-down mode and controlled be 16bit micro possessor and memorized the times of vibration by memory sector
- Easy to take a multi picture by falling delay system of magnet

Model	Type	Power	Output	Vibration range	Motive output	Magnet control
Jh-11000	Light uniform	AC220V	20W	60-15120/min	4-10Vpp	Control
Jh-11000	ALight dis-uniform	AC220V	20W	60-15120/min	4-10Vpp	Control

Jh-3008A, 5500

Digital Stop Watch

FEATURE

- 1/1000second(15 memory)
- Used to measure quick time in the test of velocity, acceleration, and up-down motion gravity acceleration.
- Able to measure from 0.001 seconds to 60 minutes and has the function of start, stop, lap, and reset.
- Able to measure the moving time of objects by using light sensor.

■ Photo-gate (Micro stop watch parts)

- A parts micro-chronometer and electronic switch which makes 'Start' and 'Stop switch' automatically operate after sensing the objects moving with quick velocity.
- Able to measure the velocity of up-down motion, uniform velocity motion, and acceleration motion with the error of ± 15us.
- Installed with verticality, horizontal, and all angle.
- Installed in the upper and lower sides of falling motion.

Jh-3008A	Digital stop watch	AC220V, DC9V	0.001sec-60min	15 Memory
Jh-5500	Photo gate	Micro-chronometer power	15us	

Address : 35 Waryong-dong, Jongno-gu, Seoul, KOREA
Phone & Fax : Phone (+82-2-742-3555) Fax (+82-2-742-3348)
E-mail : choi@jico.co.kr URL http://www.jico.co.kr

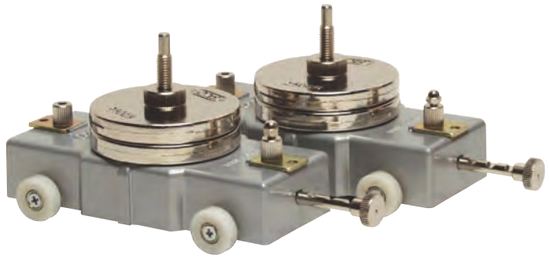
Jh-3600 Magnetic Stirrer

FEATURE

- An instrument which bends more than two mixtures
- Magnetic type which is used to precipitate Magnetic Bar in liquid

Model	Mode	Power	rpm
Jh-3600	Magnetic	AC 85-220V	60-3600

Jh-1500p Dynamic Cart

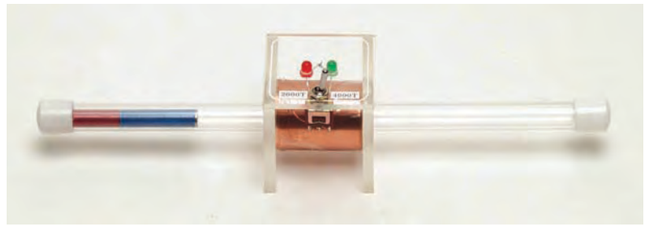


FEATURE

- Used for test of uniform motion, degree of acceleration, variation of mass by acceleration, raw of motion preservation, and stop/ inertia by spring
- Consisted of 1 set(2 carts with same mass)

Model	Cart weight	Balance weight	Total weight	Consist
Jh-1500p	500g	250g(2 ea(set))	I kg	2 ea(set)

Jh-4000T Electric Generator



FEATURE

- An instrument which generates electricity of coil by up-down motion of magnet
- Magnet motion track is installed in the empty core solenoid coil
- Small lamp is lighted with the positive and negative poles separately

Model	Mode	Coil	Display
Jh-4000T	Stick magnetic	2000/4000T	LED(2 ea)

JIN HEUNG SCIENTIFIC CO.

JHV-1999D, 1999A Digital Meter

FEATURE

- 3.5 line digital-meter that measures voltage and electric current.

Model	Product name	Measuring range	Class	Power	Mode
JHV-1999D	DC voltmeter	0-199.9V	0.5%	DC 9V	L,C,D
JHV-1999A	AC voltmeter	0-300V	0.5%	DC 9V	L,C,D
JHA-1999D	DC galvanometer	0-1.999A	0.5%	DC 9V	L,C,D
JHA-1999A	AC galvanometer	0-19,99A	0.5%	DC 9V	L,C,D
JHG-1999	Galvanometer	0-1999uA	0.5%	DC 9V	L,C,D

Jh-1061, 2001 Induction Coil

FEATURE

- Used for the source of electric power, as an instrument, which makes high voltage power. Be suitable for a laboratory use as it is high voltage and low electric current.

Model	Electric power	Frequency	Polarity	Output control	Discharge distance
Jh-1061	AC220V, DC12V	Frequency control	Conversion	Control	120mm
Jh-2001	Involved discharging rod			×	100mm

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E-mail : choi@jico.co.kr URL http://www.jico.co.kr

HS24-01

Mineral collection 24

HS24 - 01 Ivory
211×162×22mm
Mineral Collection
Mineral collection provides an excellent foundation to the science of mineralogy with first quality spesimen materials gathered from around the world
· Various frame style
Ivory, blue, wooden pattern frame
· Custom-made frame color,
Custom-designed inner print
and box-design possible

HS24-02

Mineral collection 24

HS24 - 02 Blue
211×162×22mm
Mineral Collection
Mineral collection provides an excellent foundation to the science of mineralogy with first quality spesimen materials gathered from around the world
· Various frame style
Ivory, blue, wooden pattern frame
· Custom-made frame color,
Custom-designed inner print
and box-design possible

Mineral & Fossil HANSOL EDUCATION CO., LTD.

HS12-01

Birthstone collection

HS35-01

Mineral collection 35

Address : 468-9 Daeum Bldg. 2FL., Seogyo-dong, Mapo-gu Seoul. KOREA
Phone & Fax : Phone (+82-2-338-9031) Fax (+82-2-3142-2527)
E-mail : robinpjh@hotmail.com URL http://www.hansolworld.com

Accelerometer 5-g (KDS-1014)

- Range : Full range: -47m/s² ~ +47m/s²
- Available range: -19.6m/s² ~ +19.6m/s²
- Resolution : 0.038m/s²
- Frequency Response : 0~100Hz

Accelerometer 25-g (KDS-1048)

- Range : Full range: -245m/s² ~ +245m/s²
- Available range: -98m/s² ~ +98m/s²
- Resolution : 0.2m/s²
- Frequency Response : 0~100Hz

Barometer Sensor (KDS-1016)

- Range : 0 ~ 2,068hPa
- Resolution : 0.6hPa

Balance I (KDS-1053)

- Range : 0 ~ 200g
- Resolution : 0.01g

Balance II (KDS-1054)

- Range : 0 ~ 500g
- Resolution : 0.1g

Photosynthesis experiment equipment (SCS-300)

Composition
- Photosynthesis equipment 1
- ScienceCube® Pro 1 (Option)
- CO^2 Sensor 1
- PT Temperature Sensor 1
- DO Sensor 1 (Option)

CO2 Gas Sensor (KDS-1020)

- Range : 0 ~ 5,000ppm (0 ~ 0.5%)
- Resolution : 2.44ppm
  (using 12 bit 5V AD converter)
- Accuracy (at standard 1atm):
  ±100ppm (0 ~ 1,000ppm)
  ±10% (1,000 ~ 5,000ppm)

High Concentration CO_2 Sensor (KDS -1037)

- Range : 0 ~ 10% (0 ~ 100,000ppm)
- Resolution : 30ppm
- Accuracy (at standard 1atm)
  0~10,000ppm :
  ±100ppm or ±10% of reading,
  10,000ppm~20,000ppm :
  ±20% of reading
  over 20,000ppm ; qualitative only.
- Calibration Information
  Slope: 25000ppm/V, offset 0V
  (0V=0ppm, 4V=100,000ppm)

Colorimeter II (KDS-1044)

- Range : 0 ~ 100%T
- Resolution : 0.035%T
- Wavelength : 430nm, 470nm, 565nm, 635nm

Conductivity Probe (KDS-1038)

Range:
- Low Range : 0 to 200 μs/cm
  (0 to 100 mg/L TDS)
- Mid Range : 0 to 2000 μs/cm
  (0 to 1000 mg/L TDS)
- High Range: 0 to 20,000 μs/cm
  (0 to 10,000 mg/L TDS)

Resolution :
- Low Range : 0.025 μs/cm
  (0.05 mg/L TDS)
- Mid Range : 0.25 μs/cm (0.5 mg/L TDS)
- High Range: 2.5 μs/cm (5 mg/L TDS)

High Resolution Conductivity Probe (KDS-1019)

Range:
- Low Range : 0 to 50 μs/cm
  (0 to 25 mg/L TDS)
- Mid Range : 0 to 500 μs/cm
  (0 to 250 mg/L TDS)
- High Range: 0 to 5,000 μs/cm
  (0 to 2,500 mg/L TDS)

Resolution
- Low Range : 0.025 μs/cm
  (0.0125 mg/L TDS)
- Mid Range : 0.25 μs/cm
  (0.125 mg/L TDS)
- High Range: 2.5 μs/cm (1.25 mg/L TDS)

Microphone (KDS-1012)

- Range :20Hz~20000Hz, 50 ~ 20dbVrm

Current Probe (KDS-1010)

- Range : DC -1.0 ~ +1.0 A
- Resolution : ± 0.6mA (12bit)
- Circuit Properties : Sensor is separated and insulated from ground
- Power dissipation : Max. 5W (0.01Ω)

Galvanometer Probe (KDS-1031)

- Range : DC ±12.5mA, ±1.25mA, ± 0.125mA
- Resolution : ± 0.06μA
- Circuit Properties : Sensor is separated and insulated from ground

Differential Voltage Probe (KDS-1009)

- Input voltage range : ± 12.0V
- Max. input voltage : ±14.5 V
- Input Impedance (to ground) : 10 MΩ
- Linearity : 0.01%
- Resolution (12bit) : 3.1 mV
- Supply voltage : 5V DC
- Supply current (typical) : 9 mA
- Output voltage range : 0 ~ 5 V

DO Probe (KDS-1022)

- Range : 0 to 15 mg/L (or ppm)
- Accuracy : ±0.2 mg/L
- Resolution : 0.007 mg/L
- Response Time :
  95% in 30 seconds,
  98% in 45 seconds
- Temperature Compensation :
  automatic from 5-35° C

EKG (ECG) Set (KDS -1040)

The EKG Sensor measures electrical signals produced during muscle contractions. ScienceCube® provides EKG Sensor and Electrodes as a set. It can be used for monitor EKG with various human activities. Also you can study the P, Q, R, S and T wave forms.

- EKG Range : 0 ~ 5mV
  Resolution : 5μV
- Pulse Range of Pulse : 47 ~ 250 BPM
  Resolution : 1 BPM

Stethoscope (KDS-1051)

You can see your heart beat as a graph with the Stethoscope.

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E-mail : info@koreadigital.com URL http://www.koreadigital.com / www.sciencecube.com

Force Sensor II (KDS-1029)

- Range : ±10N/±80N
- Resolution : ±0.0056/±0.056/
- Sensor type : Electrical strain gauge

Heart Rate Monitor (KDS - 1046)

- Range : 0 ~ 250 BPM
- Resolution : 1 BPM

Humidity Sensor (KDS-1008)

- Range : 0 ~ 100%
- Resolution : 0.1%

Differential Gas Pressure Sensor A (KDS-1034)

The A - Differential Gas Pressure Sensor II is suitable for general gas pressure experiments like Boyle's law.

- Range : -1000 ~ 3000hPa
- Resolution : 1.3hPa
- Toleration : -1000 ~ 3050hPa
- Unit : Differential (Relative) pressure
- Response time : 0.2ms average

Differential Gas Pressure Sensor B (KDS-1032)

The B - Differential Gas Pressure Sensor II is suitable for more precise biology experiments like respiration of yeast.

- Range : ±650hPa
- Resolution : ± 0.335hPa
- Toleration : ±700hPa
- Unit : Differential (Relative) pressure
- Response time: average 0.2ms

Magnetic Field Sensor 30 (KDS-1007)

- Range : -50 ~ +50 G
- Resolution : 0.024G (12 bit)
- Sensor depth : 5.0mm
- Sensor type : Radiometric, Linear Hall Effect Sensor
- Strobe Timing : changes according to interface (Max. 0.1ms)

Motion Sensor II (KDS-1042)

- Range : 0 .16 ~ 6m (Max. 10m)
- Resolution : ±1.5mm
- Gauging principle : Ultra Sonic Transducer
- Beam Angle : Cone, around 15°
- Sampling rate : (Max. 100samples/s) depends on measuring distance

ORP Probe (KDS-1039)

ORP Electrode
- Type : Sealed, gel-filled, epoxy body, Ag(AgCl) reference
- Storage solution : pH-4/KCl solution (10g KCl in 100mL buffer pH-4 solution)
- Temperature range : 0 ~ 60℃
- Impedance : ~20MΩ at 25℃

Electrode(ORP) Amplifier
- Amplifier input range : -450 mV ~ 1100 mV
- Voltage output range : 0 - 5 V
- Calibration function : V (mV) = 466.875 * Vout (V) - 559.793
- Resolution : 0.5 mV

PC Camera (KDS-1041)

- Interface : USB 1.1 P&P
- Resolution : 350,000Pixels
- Color : 24-bit, True Color
- Sensor : 1/4inch CMOS

Photogate (KDS-1023)

The ScienceCube® Photogate is a digital switch-type sensor that has two states low (ON condition) and high (OFF condition). The Photogate comprises an infrared transmitter and a receiver mounted and aligned in a plastic frame.

Internal Gate
- Infrared source peak wavelength : 880 nm
- Rising time : 2.5 μs
- Falling Time : 3.8 μs

External Gate
- Infrared source peak wavelength : 880 nm
- Spectrum Sensitivity : 500 ~ 1050 nm
- Rising time : 8 μs
- Falling Time : 10 μs

Pulley (KDA-15)

The Photo-event Pulley connects to the photogate by using the accessory rod that comes with the photogate. Place the rod though the hole in the photogate and move the pulley into position so that the rod can be threaded into it. Tighten up the rod so that the pulley is held firmly against the photogate. The Photo-event Pulley is a low-friction pulley with ten spokes.

- Effective circumference : 20 cm
- Pulse / round : 10
- Effective diameter : 64 mm
- Out diameter : 67 mm

Cart Picket Fence (KDA-16)

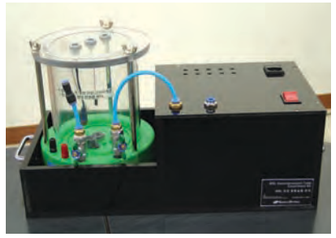
Picket Fence (KDA-17)

The Picket Fence is useful for dynamic system with Photogate.

Laser Pointer (KDA-18)

The Laser pen is required when you do experiment on the external gate mode.

Earth Science Actual Experiment Package (SCS-100)



Application
- Making artificial cloud
- Adiabatic change
- Buoyancy experiment
- Relative humidity experiment
- Change of boiling point depend on pressure
- Thermocline formation experiment
- Boyle's law
- Osmotic pressure

Oxygen Gas Sensor (KDS-1047)

- Range : 0 ~ 27% O2
- Output voltage range : 0 ~ 4 V in air at 25℃, sea level (standard) other range optional.
- Resolution : 0.03% (12 bit)

Photodiode Light Sensor (KDS-1033)

- Range : 0 ~15000Lux
- Resolution :
  Full range : 0 ~ 15000Lux
  General Purpose : 0 ~ 6000Lux
  Sensitive range : 0 ~ 600Lux

Radiation Monitor (KDS-1030)

- Range : 0 ~ 20mR/hr (0 ~ 20,000 CPM)
- Resolution : 1 CPM
- Temperature Range : 0 ~ 50℃

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E-mail : info@koreadigital.com URL http://www.koreadigital.com / www.sciencecube.com

Turbidity Sensor (KDS-1017)

- Range : 0 ~ 200NTU
- Resolution : 0.25NTU

Sensor Adaptor (KDS-1050)

The Sensor Adaptor is developed for using ScienceCube® Logger with other company sensors.

AC Power Control Strip (KDS-3036)

- AC 250V ~ 15A 50/60 Hz

pH Sensor (KDS-1005)

- Range : pH 0 ~ 14
- Resolution : ± 0.0036 pH units

Neutralization Titration Kit (SCS-200)

Neutralization Titration Kit allows students to experiment neutralization reaction of acid and base. ScienceCube® supplies required reagents and indicators for neutralization titration experiment to see the changes obviously. It makes you free from burden of preparation. Also, Students can investigate collected data on their computer or interface.

Composition

• pH sensor	1
• ScienceCube® Pro	1 (option)
• Stainless Steel Temperature sensor	1 (option)
• Micro Stirrer	1
• Kit : Reagent	4
Indicator	3
Magnet	4
Small Bottle	12
• Stand	1
• Stand Clamp	1
• Burette	1
• 50ml Beaker	1

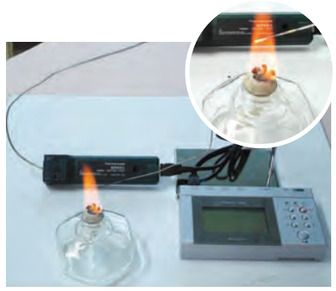
PT Stainless Steel Temperature Probe (KDS-1031)

- Range : -50℃ ~ +180℃
- Resolution : ± 0.06℃
- Sensor Properties : PT temperature element (RTD), Stainless steel covered.
- Response Time : 10s(90%)
- Chemical Resistance : 15 minutes (1M HCl)

Stainless Steel Temperature Probe (KDS-1001)

- Range : -25℃ ~ +125℃
- Resolution : ± 0.1℃
- Sensor Properties : Thermistor Stainless steel covered
- Response Time : 10s(90%)
- Chemical Resistance : 15 minutes (1M HCl)

Thermocouple Probe (KDS-1002)



- Range : -200℃ ~ +1200℃
- Resolution : ± 0.6℃
- Sensor Properties : Type K Thermocouple stainless steel covered.
- Linearity : 0 ~ 400℃ (±3℃), -200℃ ~ 0℃ (±2℃)
- Chemical Resistance : 15minutes (1M HCl)

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E-mail : info@koreadigital.com URL http://www.koreadigital.com / www.sciencecube.com

ScienceCube® Pro (KDM-1002)

1.Size : 160×90×25mm
2.Display : 128×64 wide graphic mono screen
3.Internal Memory : 1Mb
4.Data management : Up to 50,000 data collection and up to 16 times experiment stores.
5.Battery : Rechargeable lithium-polymer battery(1250mAh) from the USB port
-Minimum storage time : more than 3 months
-Measurement : at least 48 hours
6.Sensor input : Using 3 channels simultaneously.
7.Sampling time : Real time mode
- 0.05sec / 3 channels
- 0.005sec / 1 channel
Stand-alone mode
- 0.0001sec / 1 channel
8.Resolution : 12bit A/D
9.Digital in/output port : 1 channel
Output : PWM, Sine, Square, Triangle, Sawtooth wave
10.Communication port : USB Port, Serial Port
11.Control key : 7 keys

Rotational Momentum Package (SCS-600)

Composition
- Rotating Disk 1
- Large Ring Mass 1
- Pulley with Clamp 1
- Mass 3
- Hanger 1

ScienceCube® Lite II (KDM-1001)

1.sensor input port : 3 channels
2. Sampling time :
Real time mode
- 0.05sec / 3channels
- 0.005sec / 1 channel
High-speed mode
- 0.0001sec / 1 channel
3. Resolution : 12 bit A/D
4. Digital input & output : 1 channel
5. Memory : 1Mb
6. Communication Port : USB 1 channel
7. Plug & Play system : Auto Sensor Identification
8. Automatic Firmware upgrade
9. Estimate with Digital Strobo timing

1.5m Air Track (KDA-1)

The Air Cushion Track adopted air cushion so that can do precise motion experiment by reduction of frictional resistance. You can investigate various law of motion as uniform motion, average and instantaneous velocities, uniform acceleration, conservation of energy with ScienceCube® Photogate or Motion Detector. ScienceCube® also supplies very reliable air compressor without noise.

- Usable Length : 1.5m
- Linearity : error ≤ 0.1mm in full length
- Cart Payload: 3times of cart weight
- Cart float height : ≥ 0.1mm

1.2m Dynamic Set (SCS-200)

Dynamic set is designed to do very wide physics experiments with supplied accessories. such as dynamic carts, pulley, photogate.
The track enables students more accurate experiments
by minimizing friction. Dynamic set makes Students understand Newton's Laws, investigate acceleration on an inclined plane, collect data on elastic and inelastic collisions, study conservation of energy, and much more.

Composition
- Dynamic track 1
- Pulley with Clamp 1
- Pivot Clamp 1
- Photogate 1
- Dynamic cart 2
- Springs 5
- Tripod 1
- Steel rod 1

KISCO-8055

Thermometer Case

FEATURE

- Suitable for safekeeping glass thermometers to prevent from its breakage
- Able to keep 150mm thermometers or 300 mm thermometers respectably
- Able to keep 75 units of thermometer all together

SPECIFICATION

- Material : Steel, Plating paint
- Grade : 45 units for 300 mm thermometers, 35 units for 300 mm thermometers
- Size : 330 × 170 × 170 mm

KISCO-900

Total Water Meter

FEATURE

- Strong and easy to carry as it is made of aluminum
- Convenient for measurement and speedy for test results
- Able to various water analysis by one equipment
- Useful for practice for students
- Able to get the details of water analysis with one description
- t from it's breakage or alcohol or mercury or broken

Accessories

- Korean language description
- Case for keep and carry(aluminum case with a shoulder string)

SPECIFICATION

* Component

- Digital thermometer : -50~200C
- ph-meter :-1~15.0 ph
- TDS : 0~1990ppm
- COD tester
- NH4 tester
- PH compensating liquid
- Beaker
- Water container
- Sample bottle
- Measuring tape
- Spectacles
- Pincette

KYUNGIN SCIENCE CO.

KISCO-1

Scoliometer Edu System

FEATURE

- Most suitable equipment to diagnose Scoliosis without radiation damage by X-ray test
- Newest equipment which meets all requirements of measurement
- Precise measurement with scientific design
- Easy carry and convenient for use to apply to various measurements
- Able to measure cm, mm, and soon.
- Strong surface intensity by special coated
- Convenient for use by circular level

SPECIFICATION

- Mesuerment range : level : 0~45
  Support stand : 450 mm
  Extension stand : 160mm
- Accuracy : level : 5
  Support stand : 10 mm
  Extension stand : 2mm
- Measuring items : Shoulder slant angle
  pelvis slant angle
  Chest protrusion angle
  neck curve angle
  Front/ back chest curve angle
  Mean look front/back angle
- Size : 450 × 180 × 80mm
- Weight : 450g

Accessories

- Descriptions
- Aluminum case

Basic understanding of scoliosis

- Symptoms: vertebra metamorphosis of 'S'shape
  unbalance of pelvis
  Shoulder curving phenomenon of body
- Occurrence time : After 10 years olds
- Occurrence frequency : about 10%

KISCO-8044

Spring Scale

FEATURE

- In order to school and kindergarten education
- High quality and Simple design with basic color

SPECIFICATION

- Capacity 200g 500g 1,000g 2,000g 5,000g

Address : 126-3, Ikseon-dong, jongno-gu, Seoul. KOREA
Phone & Fax : Phone (+82-2-3675-0088) Fax (+82-2-3675-0087)
E-mail : kiscoshop@hanmail.net URL http://www.kiscoshop.co.kr

SP10189

V-styled Electrolysis Apparatus

FEATURE

The equipment invented to make the ratio of hydrogen and oxygen(2:1) approximately same during electrolysis by minimizing the physical factors which affect the ratio of hydrogen and oxygen.

CHARACTERISTICS

1. The electrode can be exchanged and compared according to its usage.
2. A power resource device attached.
3. Combustion Experimentation can be done for finding out whether the two gases are flammable or not.
4. An experiment of observing electricity' s movement, combustion, deoxidation is possible.
5. With built-in thermometer, two gases' solubility, which has been generated by temperature difference, can be observed.
6. Size : 150 × 165 × 400 (W × D × H)mm

SP10190

Gas Generator(KIP Equipment)

FEATURE

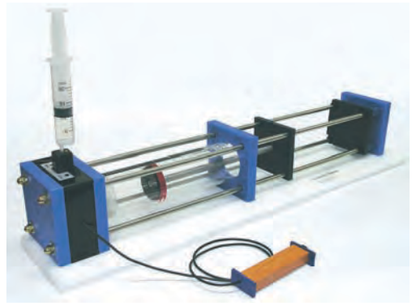
With water transposition equipment, various kinds of gases can be collected and used quantitatively (such as hydrogen gas during water composition experiment), and the gas (which was generated during acid and metal reaction) combustion experiment can be done without any danger of explosion.

CHARACTERISTICS

1. It is economical because the injected solution can be used until it loses its effect.
2. With little smell. pleasant experiment can be done.
3. No danger of explosion during generated gas combustion experiment.
4. Size :110 × 70 × 220 (W × D × H) mm

SP10187

Experiment Equipment of the Law of Gaseous Reaction



FEATURE

When discharging electricity using a piezoelectric Igniter in the mixed state with a certain amount of hydrogen and oxygen, after injecting them in the experimental equipment, the hydrogen gas and oxygen gas are combined together at the ratio of 2:1, and thus $2H_2O$(vapor) molecules are formed in the experimental equipment. This experiment is effective in experimenting the Law of Gaseous Reaction($2H+O_2=2H_2O$).

CHARACTERISTICS

1. You can experiment a law of fixed chemical ratio.
2. Since you can perform this experiment several times, you can observe water being formed by combining the two gases with the naked eye.
3. With adiabatic expansion caused by using the water created I the experimental equipment, you can test a cloud formation.
4. Size : 130 × 680 × 110 (W × D × H) mm

(주)싸이언스파크 SCIENCE PARK SCIENCE PARK

SP10501

Micro Stirrer

CHARACTERISTICS

1. It' s a basic experiment apparatus of SSC(Small Scale Chemical)
2. The speed can be controlled, You can observe a slow reaction experiment
3. The size decease it will be able to use lightly from kip space.
4.Range : 5 - 250cc beaker

SPECIFICATION

Size : 67 × 67 × 27 (W × D × H) mm
Weight : 104g
Power : 1.5 AAM * 2

SP10502

Fleming's Rule Apparatus

FEATURE

It is a machine which is the possibility of seeing the fact that the object moves by electromagnetic force

CHARACTERISTICS

1. It will be able to understand a electromagnetic force easily
2. There is a possibility of changing the anode and the cathode easily.
3. The re-setting is not a necessity

SPECIFICATION

Size : 400 × 67 × 67 (W × D × H) mm
Weight : 80g
Power : 9V or Power supply

SP10503

Osmotic Pressure Apparatus

CHARACTERISTICS

1. The Osmotic pressure experiment which present time is difficult there is a possibility of doing easily in Osmotic pressure experiment apparatus.
2.This product result is a possibility of trying to be easy.

SPECIFICATION

Size : 100 × 55 × 170 (W × D × H) mm

Address : 2F, 262-1, Sungsan-dong, Mapo-gu, Seoul, Korea
Phone & Fax : Phone (+82-2-742-6518) Fax (+82-2-745-6519)
E-mail : scipark@scipark.co.kr URL http://www.scipark.co.kr

SP10504

The Composition of Light Apparatus

FEATURE

Red, blue, green LED where it is the three primary colors of the light about under using easily it will be able to compose the light.

CHARACTERISTICS

1. It presses the Red, blue and green button and it wants of trying to make the color where there is a possibility.
2. The plastic circle ball about under using color clearly it did.
3. The size decease it will be able to use lightly from kip space.

SPECIFICATION

Size : 67 × 67 × 27 (W × D × H) mm
Weight : 104g
Power : 1.5 AAM * 2

SP10505

Electric Conductivity Apparatus

FEATURE

It is an organization which is the possibility of knowing electric conductivity of each solution.

CHARACTERISTICS

1. Simply there is a possibility of knowing electrolyte solution and the non-electrolyte solution.
2. There is a possibility of knowing electric conductivity differences of each solution(Running water, distilled water, coffee, and salted water etc.)
3. It shows electric conductivity sizes with LED

SPECIFICATION

Size : 67 × 67 × 27 (W × D × H) mm
Weight : 26g
Power : 12V 23A

SP10506

Observation Apparatus for Heat Conduction

FEATURE

It is apparatus where there is a possibility of knowing Thermal conductivity of the five types metal(Copper, aluminum, zinc, brass and iron).

CHARACTERISTICS

1. It will attach the liquid crystal film thermometer in the metal, there is a possibility which it will know heat conduction speed easily with color change.
2. It does not use the alcohol ramp not to be, when only the water of the temperature(40℃) which is suitable it is and the experiment is possible
3. It thought the safety of the user

SP11027

Neutralization Reaction Experiment Kit

FEATURE

Indicator about under using it is an experimental kit which seeks a acid and a base Neutralization.

CHARACTERISTICS

1. It is one of the SSC(Small Scale Chemistry) experiment
2. The sodium hydroxide, hydrochloric acid, ammonia, acetic acid about under using there are a possibility of knowing the relationship of each solution.
3. The micro stirrer and the mini stand about under using it is simple and accurately, it will be able to experiment.

SPECIFICATION

Size : 235 × 115 × 115 (W × D × H) mm

SP11006

Try to Distinguish the Rocket (Gas genesis Kit)

FEATURE

It makes the hydrogen and the oxygen, The hydrogen and the oxygen about under combining it distinguishes the pipette rocket

CHARACTERISTICS

1. It is one of the SSC(Small Scale Chemistry) experiment
2. launching pad and exploder about under using it is a break and there is a possibility of distinguishing the pipette rocket.

SPECIFICATION

Size : 235 × 115 × 115 (W × D × H) mm

SP11004

Oxidation and Reduction of Copper

FEATURE

The oxygen and the hydrogen about under using it is a kit which is the possibility which it will oxidize the copper and it will reduce

CHARACTERISTICS

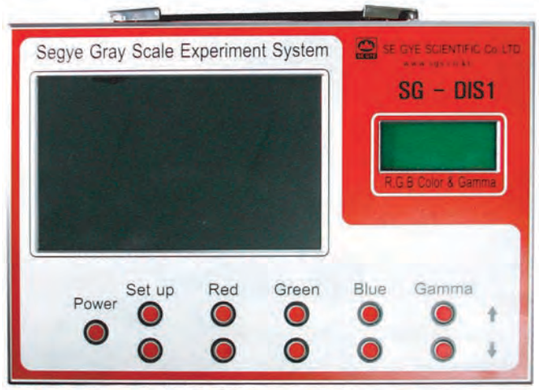
1. It is one of the SSC(Small Scale Chemistry) experiment
2. There is a possibility of knowing the effect which the oxygen and the hydrogen give to the metal.

SPECIFICATION

Size : 235 × 115 × 115 (W × D × H) mm

Address : 2F, 262-1, Sungsan-dong, Mapo-gu, Seoul, Korea
Phone & Fax : Phone (+82-2-742-6518) Fax (+82-2-745-6519)
E-mail : scipark@scipark.co.kr URL http://www.scipark.co.kr

SG-DIS1 Segye Gray Scale Experiment System



FEATURE

This demonstration system shows the effect of gray scale(Red, Green, Blue) for LCD(Liquid Crystal Display).

SG-DIS2 Segye Plasma & Glow Discharge Experiment System

FEATURE

This demonstration Apparatus shows the Grow discharge and the Plasma Discharge(Argon gas).

SE GYE SCIENTIFIC CO., LTD

Address : 813 TECH-dong SK@TECHNOPARK sangdaewon1-dong jungwon-gu seongnam-city Gyeonggi-do Republic of Korea
Phone & Fax : Phone (+82-2-430-0050) Fax (+82-2-430-0049)
E-mail : segye@sgs.co.kr URL http://www.sgs.co.kr

SG-IT2 Segye Interface Electric Field Apparatus System

FEATURE

Students can draw the equal electric field line and study electric field and equal line.
Segye Interface Electric Field Apparatus System(SG-IT2)is able to make a various experiment with electrode material.
Segye Interface Electric Field Apparatus System(SG-IT2) can support an interface.

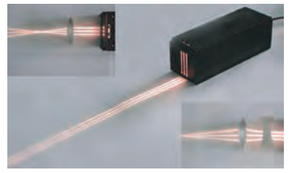
SG-9416D Segye Digital Tuning Fork

FEATURE

The digital tuning fork is an effective tool for generating sound waves.
This apparatus can generate the sound of 13 steps.
step 1 : 256Hz
step 2 : 288Hz
step 3 : 320Hz
step 4 : 341Hz
step 5 : 384Hz
step 6 : 426Hz
step 7 : 480Hz
step 8 : 512Hz
step 9 : 600Hz
step 10 : 700Hz
step 11 : 800Hz
step 12 : 900Hz
step 13 : 1000Hz

SG-9502S

Segye Basic Optics Experiment System



FEATURE

The basic Optics Experiment system uses a parallel light sources.
The light source projects 1, 2, 3 parallel beams onto any flat surface.

EXPERIMENT

1. Introduction of Ray Optic
2. The Law of Reflection & Refraction
3. Total internal reflection
4. The Lenses

SG-9602E

Segye Helmholtz Coil System

FEATURE

This system includes helmholtz coils and compass and e/m tube.

EXPERIMENT

1. study of the Helmholtz coil
2. Measuring the earth's magnetic filed
3. Measuring the e/m value

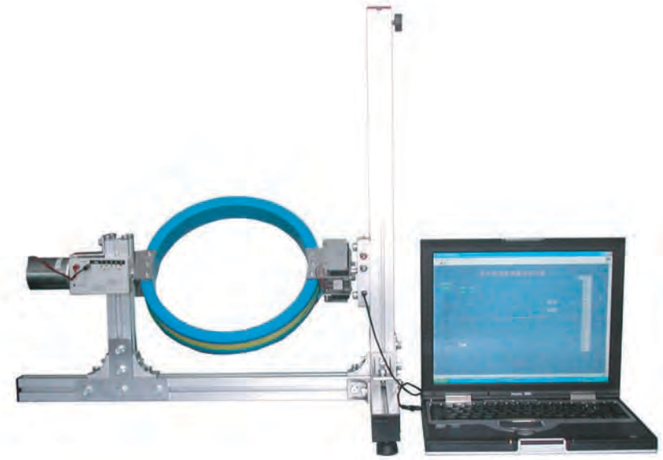
SE GYE SCIENTIFIC CO., LTD

Address : 813 TECH-dong SK@TECHNOPARK sangdaewon1-dong jungwon-gu seongnam-city Gyeonggi-do Republic of Korea
Phone & Fax : Phone (+82-2-430-0050) Fax (+82-2-430-0049)
E-mail : segye@sgs.co.kr URL http://www.sgs.co.kr

Basic Scientific Devices

SG-IT2

Segye Geomagnetic Intensity Measurement System



FEATURE

Measuring the earth's magnetic filed with a rotating induction coil.
Measuring by x, y and z axis.
Measuring the earth's magnetic filed with a PC or Oscilloscope.

SG-9115

Segye Digital Tesla Meter

FEATURE

Tesla meter can measure the magnetic flux and display the value to the FND monitor in digital type

- Range : ±0~2mT, ±0~200mT, ±0~2000mT
- Accuracy : ±5%
- Hall element : GaAs
- Probe : Vertical type probe (SG-9115-1) 1EA
  Horizontal type probe (SG-9115-2) 1EA
- Size : 115(W)×220(D)×110(H)mm

SHSPC-F002 Viscera (crusian carp)

FEATURE

- This SHSPC-F002 provides information of internal organs such as the blood vessel, intestines, the air bladder, the urinary bladder. These organs are treated with the color injection for natural color, so it provides clear vision too. Besides, SHSPC-F002 provides the names, shapes and others of the internal organs because each organ is indicated by a name tag.

SPECIFICATION

- Standard : 15 × 32 × 4㎝³

SHSPC-B001 Viscera (Fowl)

FEATURE

- This SHSPC-B001 provides information of internal organs. Its organs are treated with the color injection for natural color, so it provides clear vision too. For example, the artery, the vein are injected with the original color matters. Besides SHSPC-B001 provides the names, shapes and others of the internal organs because each organ is indicated a name tag.

SPECIFICATION

- Standard : 16 × 42 × 5㎝³

SHSPC-M001 Viscera (Squid)

FEATURE

- This SHSPC-M001 provides information of internal organs. Its organs are treated with the color injection for natural color, so it provides clear vision too. For example, the artery, the vein and intestines are injected with the original color matters. Besides SHSPC-M001 provides the names, shapes and others of the internal organs because each organ is indicated a name tag.

SPECIFICATION

- Standard : 15 × 42 × 4㎝³

SHINHAN BIOLOGICAL SPECIMEN

SHSPC-M007 Viscera (Clam)

FEATURE

- This SHSPC-M007 provides information of internal organs. Its organs are treated with the color injection for natural color, so it provides clear vision too. For example, the blood vessel is injected with the original color matters. Besides SHSPC-M007 provides the names, shapes and others of the internal organs because each organ is indicated a name tag.

SPECIFICATION

- Standard : 15 × 42 × 4㎝³

SHSPC-C003 Dissection of Heart (Dog)

FEATURE

- This SHSPC-C003 provides information of internal organs. Its organs are treated with the color injection for natural color, so it provides clear vision too. For example, the artery, the vein heart valves, both ventricles and atria are injected with the original color matters. Besides SHSPC-C003 provides the names, shapes(atria, ventricles, heart valves) and others of the internal organs because each organ is indicated a name tag.

SPECIFICATION

- Standard : 15 × 47 × 4㎝³

SHSPC-S002 Dissection of Kidney (Pig)

FEATURE

- This SHSPC-S002 provides information of internal organs. Its organs are treated with the color injection for natural color, so it provides clear vision too. For example, the artery, the vein, the urinary vas are injected with the original color matters. Besides SHSPC-S002 provides the names, shapes(horizontal and vertical sections) and others of the internal organs because each organ is indicated a name tag.

SPECIFICATION

- Standard : 15 × 42 × 4㎝³

Address : 125-24 Daesin-dong Seodaemun-gu Seoul. KOREA
Phone & Fax : Phone (+82-2-393-2613) Fax (+82-2-393-2615)
E-mail : shinhan@shinhanlab.co.kr URL http://www.shinhanlab.co.kr

Anatomical Human Body Model

Shape linkage of Human Body organs

SPECIFICATIONS

- 145cm resin plastics
- Real sized whole body, muscle, chest, abdominal, head parts are sectional or prefabricated. Real size stand

Human Skeleton Model

All part of whole body skeleton model
Solid type model

SPECIFICATIONS

- Real size
- Resin plastics

Circulation System Model

Solid model for the easy explanation of the blood circulation and the cardiac pulses of the human body

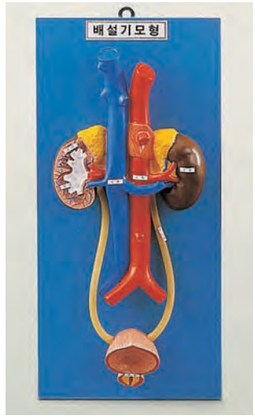
SPECIFICATIONS

- Resin plastics

Nervous System Model

A network of nerves connects the brain and spinal cord to every part of the body this simplified diagram shows only the main nerves.

Urinary System Model



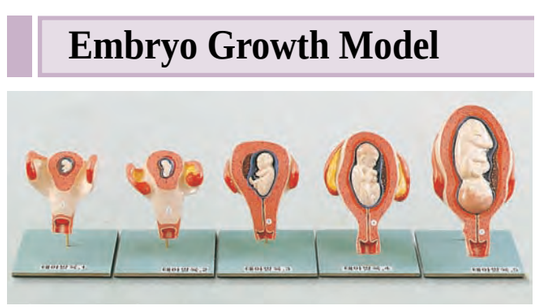
The urinary system, which includes the kidney, removes poisonous substances form the block and eliminates excess water and salts. This keeps the concentration of the blood constant

Digestive System Model

For the understanding of how foods are absorbed and resolved in human body and its organic passage in the body
Synthetic resin materials

- 310 × 790 × 120mm Resin plastics

Embryo Growth Model



The Embryo growth model shapes, functions made as an education model

SPECIFICATIONS

- Resin plastics, Real size, 5 in 1 set, with stand

Pelvis with Fetus

The Pelvis with fetus shapes, functions made as an education model

SPECIFICATIONS

- Resin plastics

The Fallopian Tube Model

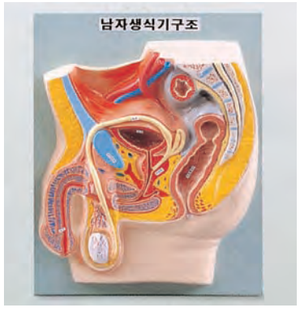
The Fallopian tube model, functions made as an education model

SPECIFICATIONS

- Resin plastics

Address : 684-2 Ahyeon3-dong Mapo-gu Seoul S.KOREA
Phone & Fax : Phone (+82-2-3676-4335) Fax (+82-2-3673-5123)

Male Reproductive Organs Model



For the study of the structure and faction of the male reproductive organs in human body

SPECIFICATIONS

- 330 × 430 × 70mm Synthetic resin materials

Female Reproductive Organs Model

For the study of the structure and faction of the female reproductive organs in human body

SPECIFICATIONS

- 330 × 430 × 70mm Synthetic resin materials

Heart Model

The front wall of ventricles is removable. The wall of right auricle can be opened to expose valves and the opening of major blood vessels

SPECIFICATIONS

- Supported by a base and metal pole
- Synthetic resin materials

Ear Structure Model

For the study of the structure and faction of ear in human body

SPECIFICATIONS

- 190 × 390 × 200mm Synthetic resin materials

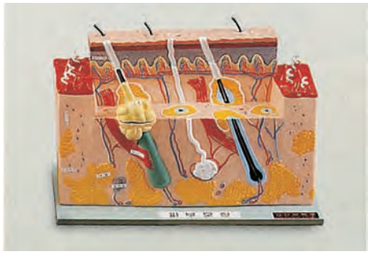
Respiratory Organ Model

For the study of the structure and faction of Respiratory organ in human body

SPECIFICATIONS

- 340 × 440 × 120mm, Synthetic resin materials

Skin Structure Model



For the study of the structure and faction of Skin structure in human body

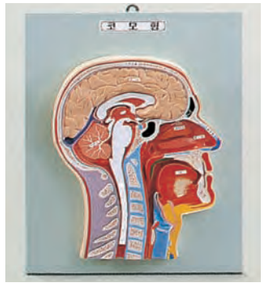
Eye Model

For the study of the structure and faction of eye in human body

SPECIFICATIONS

- 70 × 170 × 240mm Synthetic resin materials, with stand

Nose Model

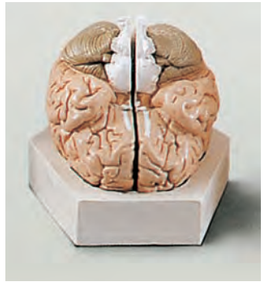


For the study of the structure and faction of nose in human body

SPECIFICATIONS

- 300 × 400 × 50mm, Synthetic resin materials,

Brain Model



For the study of the structure and faction of brain in human body

SPECIFICATIONS

- 180 × 180 × 240mm, Synthetic resin materials

Internal Structure of The Earth Model

Solid design, useful for the study for the internal structure for the earth (earth surface, mantle, nucleus, earthquake frequency earth diameter etc.)

SPECIFICATIONS

- Dimensions : 320mm prefabriccated model

Volcano Model

Volcano model is feature of mountain which hot melted rock, gas, stream and ash from inside the earth.

SPECIFICATIONS

- Dimensions 650 × 400 × 350mm

Fault Models

In change of the earth' s crust, fault is the dislocation state of Stratum when the stratum moved after receiving physical force relatively

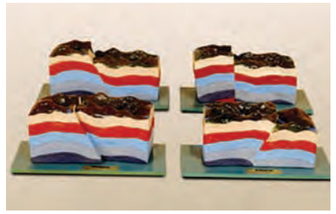
SPECIFICATIONS

- 4 types(regular, reverse, longitudinal, latitudinal) for 1 set

Fold Models

In change of the earth' s crust, fault is the dislocation state of stratum when the stratum moved after receiving physical force relatively

DislocationModels



In change of the earth' s crust, fault is the dislocation state of stratum when the stratum moved after receiving physical force relatively

Stratum Models

SPECIFICATIONS

- 240 × 110 × 140mm

Address : 684-2 Ahyeon3-dong Mapo-gu Seoul S.KOREA
Phone & Fax : Phone (+82-2-3676-4335) Fax (+82-2-3673-5123)

SDS-01-071 Magnifying Glass

FEATURE

- Usage : For Primary School Students' observation of Insects and Plant.
- Structure : Convex Glass Lens, Plastic(ABS) Frame and Holder.

SPECIFICATION

- Diameter : 5cm ~ 9cm

SDS-02-090 Lens and Mirror Set

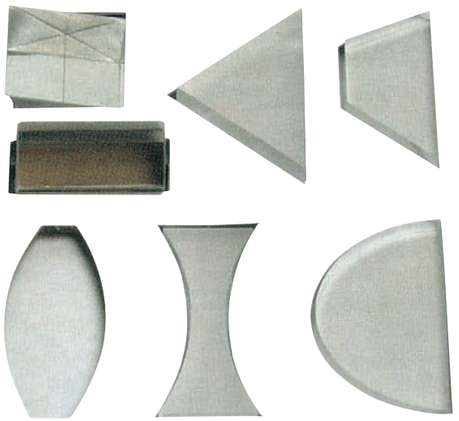
FEATURE

- Usage : For Primary School Students' indoors observation of Object
- Structure : Convex Lens, Concave Lens, Convex Mirror, Concave Mirror Stand

SPECIFICATION

- Dimension : Lens Diameter 76mm Stand Height up to 250mm (adjustable)

SDS-02-087 Prism Set



FEATURE

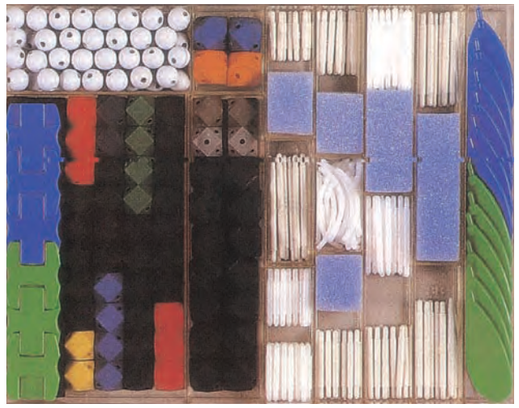
- Usage: For Primary School Students' Observation of how the Light spreads into different Colors
- Structure : 1 set composed of 7 kinds of prisms (Both sides Concave Lens, One side Concave Lens, Both sides Convex Lens, One side Convex Lens, Trapezoid type, Rectangle type 2 kinds)

SPECIFICATION

- Dimension : Flat Type, Thickness 10mm, Length 100mm

SUNDOO INDUSTRY CO.

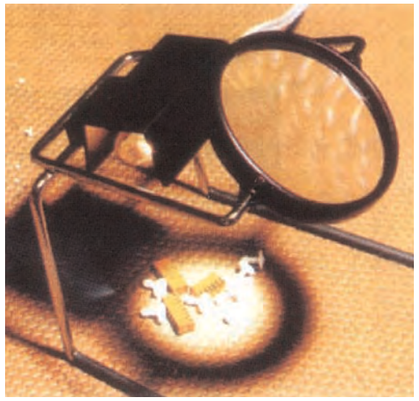
SDS-01-004 Molecular Structure Model



FEATURE

- Usage : For High School Students
- Material : Plastic
- Structure : Beads, Bonds, Others
- Features : Easy to assemble. Distance between Atoms can be measured accurately.

SDS-01-073 Stand Type Magnifier



FEATURE

- Usage : For Primary School Students' observation of objects indoors.
- Structure : 3 inch Magnifier, Electric Stand, Power Cable (AC 220V)

SDS-101 Various Lenses

FEATURE

- Usage : For Primary School Student's observation of objects
- Components : 8 Kinds of various type Lenses

Address : 51 Waryong-dong Jongno-gu Seoul. KOREA
Phone & Fax : Phone (+82-2-766-8765) Fax (+82-2-766-8766)
E-mail : 1028sung@hanmail.net URL http://www.sdnet.co.kr

Procam 3600P

Video Presenter

FEATURE

Portable & handy video presenter with high resolution(410,000)&2X digital zoom & RCA voice out support

- Potable, high quality mutli-purpose video presenter with Goose neck.
- Easy connection to PC via built in USB cable for recording, editing and saving.
- Handy function controller.
- Voice out function trough an MIC input terminal.

SPECIFICATION

ITEM	Procam 3600p
Camera	2 X Digital Zoom
Image Sensor	1/3″ Color CCD(410,000 Pixel)
Scanning Sys	2:1 Interface
Focusing	Manual Focusing
Nega/Posi conversion	O
B&W/Color conversion	O
White Balance	Auto/Manual
Goose neck	Manual
Head rotating	300″ rotating(Vertical, Hortzontal)
Remote control	Infra red remote control
USB connection	0
Power	DC 12V

SMP-22, 22P

Video Presenter

FEATURE

Multi functional video presenter with maximum 176 X zoom & versatile applications

- Special design for education & presentation.
- Negative / Positive conversion with one dick.
- Easy connection to PC through built in USB cable for recording, editing & saving the images.(SMP 22P)
- Convenient infrared remote control.

SPECIFICATION

ITEM	SMP-22	SMP-22P
Lens	22 X Optical Zoom & 8 X Digital Zoom	
Image Sensor	1/4″ Color CCD camera(410,000 Pixel)	
Horizontal Resolution	470 TV Lines	
Focusing	Manual/Auto Focusing	
Nega/Posi conversion	O	
B&W/Color conversion	O	
White Balance	Auto/Manual	
Image rotation	90″, 180″, 270″(Manual camera rotation)	
Head rotating	300″ rotating(Vertical, Horizontal)	
Remote control	Infra red remote control	
USB connection	X	O
On Screen Display	O	
Voltage	AC 100~240V/50Hz~60Hz	

Portable PET Screen

Screen

FEATURE

Quality & Mobility Product with innovative mechanism

- X type air absorber back up(Minimum height 48cm up to maximum 216cm, International patent impending!)
- Both uses for Floor and Table.
- Study self-standing screen with the screen surface raised and bwered smoothly and comfortably.
- NTSC(4:3) 80″ / 100″ design with "Ultra Bright″ surface.
- Environmentally friendly products(all of the materials can be recycled)
- The PET film screen surface is water-washable with mild soap.
- Light weight and mobile design.

SPECIFICATION

ITEM	AUP-201	AUP-202
Maximum set up size	1680mm(W) X 2160mm(H)	2050(W) X 2160mm(H)
Maximum viewing size	1680(W) X 1282mm(h)80″	2050(W) X 1560mm(H)100″
Case Size	1920(L) X 180(W) X 190mm(H)	2300(L) X 180(W) X 190mm(H)
Net W' T	9.8KG	10.9KG
Gross W' T	12.7KG	14.5KG
Film Thickness	0.15T	0.15T
Viewing Angle	45degree	45degree
Gain	2.2/3.5	2.2/3.5

OMAX Co., Ltd.
AMJEON PRECISION OPTICS CO., LTD

MP-I(15″), MP-II(17″)

Tablet LCD Monitor

FEATURE

OMAX tablet monitor is an innovative product with using a digital pen. Users could show their handwriting, drawing, signature, etc on the screen directly. The digital pen can completely replace the function of mouse and keyboard typing.

- Motivating e-learning for children and elders
- Presentation
- Drawing, Painting and Sketching
- Document Annotation
- Medical Chart and Medical Imaging
- Digital signature

SPECIFICATION

ITEM	MP-I(15″)	MP-I(17″)
LCD	TFT LCD Monitor	
Diagonal Size	15″	17″
Resolution	XGA	SXGA
Brightness	200cd/M2	260cd/M2
Contrast Ratio	350:1	450:1
Pressure Level	521level	512level
Report rate	125RPS	135RPS
Reading height	8mm(Max)	8mm(Max)
Writing height	6mm(Max)	6mm(Max)
Accuracy	+/-0.5mm	+/-0.5mm
S/W	0	0

AKS-TS

Microscope

FEATURE

High grade Biological Microscope

- High resolution for scientific research
- Basically equipped with the mechanical stage
- Din standard for eyepiece & objectives
- Lens stopper for protecting a sample
- Compatible adaptor for CCD & Digital camera

SPECIFICATION

ITEM	AKS-TS
Head	Binocular with dioptric adjuster, Interpupillary distance adjustable(55~75cm)
Magnification Range	40~1500/x
Eyepieces	23.2 ϕ HWF 10X, 15X
Objectives	DIN ACH 4X, 10X, 40X(SP), 100X(DIN)
Focus Control	Coaxial coarse & fine Knob
Stage	W118XD128mm mechanical stage with up/down stopper
Tube	30° inclined, 360° rotatable
Illumination	6V 20W Halogen lamp with intensity regulator, 110/220V
Revolver	4bulb type
Condenser	ABBE type N.A 1.25 with iris diaphragm, filter holder, blue, whiter filter

AIS-10L

Microscope

FEATURE

Industrial microscope Industrial & professional electrical usage

- Versatile Inspection for Semi conductors
- Using Goose neck, easy & convenient to observe

SPECIFICATION

ITEM	AIS-10L
Head	Binocular
Magnification Range	10 X
Eyepieces	WF 10 X
Objectives	1X
Interpupillary Distance	50~75mm
Working Distance	150mm
Illumination(12V 20W)	Halogen

Address : 263-1, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Kyeonggi-Do, Korea
Phone & Fax : Phone (+82-32-682-8811(REP)) Fax (+82-32-675-6959)
E-mail : sales@omax.co.kr, omax@omax.co.kr URL http://www.omax.co.kr

CEI-700 Chemical Elements Information

FEATURE

This is a learning material to accomplish audio-visual education with the periodic table and element group information. With the luminescence of each selected cell/element group and acoustics narration, students can reach their maximum learning effects.
The element of each cell is adopted from the pictures we can find actual life and can be used stably & usefully.

SPECIFICATION

- Power : AC110~240V, 50/60Hz
- Speaker output : 4Ω 10W × 2EA
- Uses : For Learning, Education & Exhibition
- Type : Wall / Stand
- Dimension : 1350(W) × 900(D) × 78(H)mm

*When fulfill some conditions, it is possible to make any required languages!!

TVP-850K High Resolution Video Presenter

FEATURE

- Super wide angle 16x optical zoom, 10x digital zoom
- Image capture and store 16 frames
- Shows datas clearly even without supplemental lighting in dark areas
- Easy comparison of data with PIP(picture in picture)

APPLICATION

- It enables a more efficient conference while showing presentations and three-dimensional materials clearly and can deliver much more information

TVP-2100/2300 Video Presenter

FEATURE

- Capturing, saving and printing available by connecting with computer (TVP-2300)
- Sharpness adjustment button attached to watch the image clearly
- Enlargement up to 44 times by 22 times optical zoom lens and 2 times digital

APPLICATION

- It can be used for audio/visual materials in conjunction with printed handout or educational textbook

TOPEX® Visual communication TOPEX Corp.

Video Education Resources

TFV-300/400 Flex Vision

FEATURE

- World Didac Award 2000 for the best product
- Moving image in all directions by Pan/Tilt Function
- Easy movement and preservation by light weight
- Easily acceptable to any objects by gooseneck

APPLICATION

- This product is the same purpose product with video presenter but the size and the weight are much smaller and lighter. Especially, flex vision has applicated flexible goose neck, so it is easy to approach all kind of object.

TVM-300 Video Magnifier

FEATURE

- To be used as if it was magnifier since it magnifies the small object to a large image
- More precise observation through the special camera equipped
- Economical comparing with the existing measuring Microscope

APPLICATION

- When to see the small characters into larger one(aged eyes)
- When to magnify the small objects
- To check the fault or defect of product

LSP-500 Microscopic Projector

FEATURE

- The series of this product enables the simultaneous observation of many persons on the large scale of screen by increasing the ratio to 100x, 200x, 300x, which innovates the concept of 1:1 observation of conventional type microscope to maximize the educational effects. The quality of this product is acknowledged by science and technology office.

Address : 522-5 Yonghyun-dong Uijongbu-si Kyonggi-do
Phone & Fax : Phone (+82-31-852-1991) Fax (+82-31-852-2992)
E-mail : topex@topex.com URL http://www.topex.com

NuriNET-NF System Master Side (NFA)

Digital Multimedia Language Laboratory System(Computer network-based)

NuriNET-NFA Main Display

Developed for future-oriented ICT (Information & Communications Technology) education, NuriNET-NF System is a cutting-edge class operation solution available under the PC-networked environment using audio & video integrated controller where top technology is applied.
Consisting of hardware (Master controller) connected to and operating software installed in teacher computer, NuriNET-NFA offers teacher easy-to-use functions essential to deliver efficient language teaching and to make full use of all the multimedia resources and data even from Internet.

Functions

- Pair Study/Group Study
- Attendance Check
- Electronic Board
- Oral Test & CBT
- Intercom
- Visual & Audio Modeling
- Media Player with block repetition and bookmark
- Monitoring 12 student screens at a time
- Transferring teacher's screen, cassette tape and other media sources to whole class/group /individual student
- Messenger function
- Virtual Recorder (for recording & editing)

Main Components of Master's side

- Master computer 1 set
- NuriNET-NFA (controller & operating software) 1 set
- Master recorder (including recorder cover) 1ea
- Network equipment 1set
- Headset 1ea

NuriNET-NF System Student Side(NFS)

Digital Multimedia Language Laboratory System(Computer network-based)

NuriNET-NFS Media Controller & Main Display

NuriNET-NFS, as the program installed in student computer, provides effectively various functions necessary for multimedia class as well as language class and self-study in linkage with teacher class-controlling software.

Functions

- Support of almost all types of video file formats
- Media player
- Web browser viewer with electronic board function
- Content compatibility that maximizes use of data
- Teacher calling & Help function
- Recording of sound of teaching material/teacher's &student voice
- Messenger function
- Sound volume control
- Convenient Testing (suitable for TOEIC and TOEFL)

Main Components of Student side

- Student computer
- NuriNET-NFS (media controller & operating software)
- Headset
- Audio/video cable & connector

ORIENT AV CO., LTD.

NuriNET-AOD System Master Side(AO DA)

Digital Multimedia Language Laboratory System(Digital Recorder network-based)

NuriNET-AODA Main Display

NuriNET-AOD System in the best language education solution which has never been developed before. As uniquely-designed FTP mode-supported as well as TCP/IP Network-based, this system allows all data from teacher computer to be processed by digital, which makes high quality AOD (Audio on Demand) function available.
AODA, consisting of a master control console and operating software installed in teacher computer, establishes the digital multimedia language teaching environment based MP3 technology and offers most of the functions available in computer-networked environment, which results in innovative and cost-efficient.

Functions

- AOD function and management; students can access to the database stored in teacher PC.
- Dialogue practice
- Testing and score management
- Language-learning-exclusive media player
- Student terminal lock/unlock
- Linked program register

Main Components of Master's side

- Master computer 1 set
- NuriNET-AODA (controller & operating software) 1 set
- Master recorder (including recorder cover) 1ea
- Network equipment 1 set
- Headset 1ea

NuriNET-AOD System Student Side(AODS)

Digital Multimedia Language Laboratory System(Digital Recorder network-based)

NuriNET-AODS Digital Recorder

By connecting to the teacher computer through TCP/IP network, AODS can store the digital file transferred from teacher computer and perform various language learning functions.

Functions

- Large voice storage capacity (up to 100minutes) for self-study; external USB port added
- AOD function
- Real-time dialogue with remote control by teacher
- Channel selection and listening
- Recording class content
- Continuous repetition and vari-speed playback
- Availability of both digital and analog teaching aids
- Help function
- Others: Bookmark, Oral Test, Conversation-Slow play

Main Components of Student side

- NuriNET-AODS (digital recorder)
- Headset
- Cable & connector

Optional

When teacher intends to use visual material in his/her class: Student monitor, TV, DVD Combo, LCD Projector, etc.

Address : 72-10 Shingyoung-dong Chongno-gu Seoul Korea
Phone & Fax : Phone (+82-2-396-0880) Fax (+82-2-396-0850)
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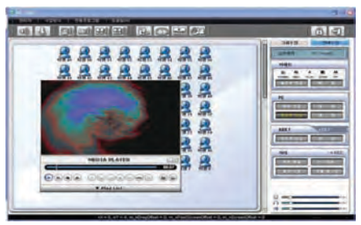
ML-500 System
Master Side

Digital Multimedia Language Laboratory System



ML-500 Main Display

ML-500 System is the most typical multimedia language laboratory system and perfectly controlled by teacher computer where operating software, ML-500 is installed.

FEATURES

- Simultaneous transmission available up to 4 different programs
- Seats arrangement displayed on master monitor and flexible rearrangement
- Remote controlled master & student recorders
- Help function with step-by-step instructions

Functions

- All Call/Group Call
- Line Call(Adding Teacher's Voice)
- Monitoring Student's Practice and its Evaluation
- Intercom
- Model Voice
- Automatic Scanning Monitor
- Pair Study
- Tripartite Conference
- Free Talk
- Test, Evaluation & Result Print
- Bookmark(Quick Index Search)
- Group Assignment (up to 5)

Main Components of Master's side

- Master computer 1 set
- ML-500(console & operating software) 1set
- Master recorder (including recorder cover) 1ea
- Headset 1ea

ML-500 System
Student Side

Digital Multimedia Language Laboratory System

Student's Recorder

Headset

Booth Amplifier

Cable & Connector

Depending on equipment installed in student's side, ML-500 System has two applications : (i) Recorder Type and (ii) Booth Amplifier Type.

Recorder Type

- All of general recorder functions available
- P-Stop/Sentence Back/Block Repeat/Bookmark
- Essential functions for efficient language learning supported
- Main components of student's side
  Recorder (including recorder cover) Headset
  Cable & Connector Power Trans Unit

Booth Amplifier Type

- Essential functions for efficient language learning supported such as Teacher Calling, 1:1 Conversation, Tripartite Conference, Pair Study, Oral Test, Multiple choice Test and etc.
- Main Components of student's side
  Booth Amplifier for listening conversation with LCD display
  Headset
  Cable & Connector

Optional

When teacher intends to use visual material in his/her class: Student monitor, TV, DVD Combo, LCD Projector, etc.

ORIENT AV CO., LTD.

OLC-5200 System
Master Side

Multimedia Language Laboratory System

OLC-5200 Master Console

OLC-5200 Master Recorder

OLC-5200 System is designed for simple laboratory and cost-efficient. It is characterized by easy-to-use, almost trouble free, and core functions for language lab supported.

FEATURES

- Present status displayed on LCD panel of master console
- Simultaneous transmission available up to 2 different programs

Functions

- All Call
- Line Call (Adding Teacher's Voice)
- Monitoring Student's Practice and its Evaluation
- Intercom
- Model Voice
- Automatic (or manual) Scanning Monitor
- Pair Study
- Tripartite Conference
- Free Talk
- Test & Analyzing
- Bookmark (Quick Index Search)

Main Components of Master's side

- OLC-5200 console 1ea
- Master recorder (including recorder cover) 2ea
- Headset 1ea

OLC-5200 System
Student Side

Multimedia Language Laboratory System

(i) Recorder Type

(ii) Booth Amplifier Type

Depending on equipment installed in student's side, OLC-5200 System has two applications : (i) Recorder Type and (ii) Booth Amplifier Type.

Recorder Type

- All of general recorder functions available
- P-Stop/Sentence Back/Block Repeat/Bookmark
- Essential functions for efficient language learning supported
- Main components of student's side
  Recorder (including recorder cover) Headset
  Cable & Connector Power Trans Unit

Booth Amplifier Type

- Essential functions for efficient language learning supported
- Main Components of student's side
  Booth Amplifier
  Headset
  Cable & Connector

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Laboratory Vacuum Freeze Dryer

FEATURE

- Easily install to Drying Chamber or Manifold Chamber. using for various vessel for example Flask, Ample, Vial and so on.
- Convenient using by not only manual control but also automatic.
- When finished drying, Backfill Port can everlasting conservation in sterilize state with input a clean air and nitrogen gas.
- It can see your sight freezing state of eliminated water in during a drying, and frost that makes for eliminated water as like doughnut is rapidly gone by hot gas. Therefore it's saving time for frost.
- It can be protection for sample against contaminate and back-ward flow thought the Automatic Purge System when it power off.
- When rising temperature the Cold Trap. Automatic protection for vacuum pump by broking the water.
- Safety control and convenience control by LCD Display monitoring with microprocessor control system managed vacuum press, Cold Trap' s temp.
- There is self-diagnosis that it' s more convenient for by finished freeze drying

VFDL02

VFDL03

VFDL06/VFDL09/VFDL12

▶Standard Type

Spec. \ Model		VFDL02-50	VFDL03-50/85	VFDL06-50/85	VFDL09-50/85	VFDL12-50/85
Ice holding capacity		2kg	3kg	6kg	9kg	12kg
Size	Cabinet (W×D×H)	550×550×420mm	600×600×880mm	700×725×880mm		
	Chamber (DIA×H)	250×230mm	250×280mm		250×350mm	250×400mm
Cold trap temp.		-50℃ under	-50℃/-85℃ under			
Compressor		1/3Hp	1/2Hp			
Applicable vacuum displacement		100 L/min(exclude)		200 L/min(include)		
Ultimate vacuum		1×10^{-3} Torr				
Electric requirement		220V, 1ph, 60Hz, 1.5kw				
Option		Vacuum pump				

* Specifications can be changed for improving the quality of our products

Laboratory Equipments

Laboratory Vacuum Freeze Dryer

▶With Shell Type

Spec. \ Model		VFDL06S-50/85	VFDL09S-50/85	VFDL12S-50/85
Ice holding capacity		6kg	9kg	12kg
Size	Cabinet (W×D×H)	1000×725×880mm		
	Chamber (DIA×H)	250×280mm	250×350mm	250×400mm
Cold trap temp.		-50℃/-85℃ under		
Compressor		1/2Hp		
Applicable vacuum displacement		200 L/min		
Ultimate vacuum		$1x10^{-3}$ Torr		
Shell freezer	Bath(W×D×H)	176×325×150mm		
	Temp.	-40℃ under		
	Comp.	1/3hp		
	Loading capa.	Flask 300ml, 600ml, 900ml ever 1ea		
Electric requirement		220V, 1ph, 60Hz, 1.5kw		
Option		Vacuum pump		

※ Specifications can be changed for improving the quality of our products

BIOCRYOS BIOCRYOS CO., LTD.

Address : #446-2, Mogok-Dong, Pyungtaek-City, Kyunggi-Do, 459-040 KOREA
Phone & Fax : Phone (+82-31-666-8614) Fax (+82-31-666-8618)
E-mail : ceo@biocryos.co.kr URL http://www.biocryos.co.kr

All Round Vacuum Freeze Dryer

FEATURE

- All the procedures of an experiment can be performed on one-touch manner based on the auto-control system and safety and convenience of an experiment would be maintained by various systems such as backfill, auto-purging, alarm system, etc. Because the interior of the equipment is consist of stainless steel, it resists corrosion and can be cleaned and managed easily.
- Unlike the previously made freeze dryer, this equipment can be applied to both individual vial and bulk scale spontaneously and preparation freezing and drying process can be performed on one-step manner. The equipment can be mounted with stoppering apparatus optionally, which makes the automatic control of the entire freeze drying process in small space. Furthermore, the experimental data of the process can be obtained easily and the price is relatively low. The equipment can be also extended to pilot plant scale experiment.
- The user, according to the purpose of the experiment, can choose a variety of accessories such as centrifugal concentrator angle dryer and install the various sample container such as the flakes, ampules and serum bottles.
- It can be protection for sample against contaminate and back-ward flow thought the Automatic Purge System when it power off.
- When rising temperature the Cold Trap. Automatic protection for vacuum pump by broking the water.

▶Table Top Type(VFDT series)

▶Consol Type(VFDC series)

Spec. \ Model		VFDT05-0050	VFDT05-3050	VFDC05-0050/0085	VFDC05-3050/3085
Ice holding capacity		5kg		5kg	
Size	Cabinet(W×D×H)	840×725×610mm		840×725×950mm	
	Chamber(W×D×H)	330×370×240mm		330×370×240mm	
	Shelf(W×D)	300×350mm		300x350mm	
Temp.	Cold trap	-50℃ under		-50℃/-85℃ under	
	Shelf	Amb.~+50℃	-30℃~+50℃	Amb.~+50℃	-30℃~+50℃
Compressor		1/3Hp	1/2Hp	1/3Hp	1/2Hp
Applicable vacuum displacement		200 L/min		200 L/min	
Ultimate vacuum		1×10^{-3} Torr		1×10^{-3} Torr	
Recorder		2pen(Shelf/Sample)		2pen(Shelf/Sample)	
Electric requirement		220V, 1ph, 60Hz, 1.5kw		220V, 1ph, 60Hz, 1.5kw	
Option		Vacuum pump, Vacuum controller, Stoppering system		Vacuum pump, Vacuum controller, Stoppering system	

※ Specifications can be changed for improving the quality of our products

BIOCRYOS BIOCRYOS CO., LTD.

Pilot Vacuum Freeze Dryer

FEATURE

- The entire freeze drying process can be optimized by the programmable PID control system using microprocessor. The conditions of the drying materials and the equipment can be confirmed in real time by a digital display system. The data of drying process and the experimental results can be obtained by the recording system.
- The various system such as backfill and automatic sterilization are incorporated for the protection of the materials and the equipment. Such system makes the entire drying process safe and the long-term storage of the materials possible. This equipment can be applied to foods, pharmaceuticals and other industrial purposes as well as researches.

Spec. \ Model		VFD005	VFD0010	VFD0030	VFD0050	VFD0100	VFD0200	VFD0300
Capacity	Ice holding capacity	6kg	12kg	36kg	52kg	110kg	220kg	320kg
	Useable surface area of shelf	0.3㎡	0.54㎡	1.8㎡	2.52㎡	5.04㎡	10.8㎡	15.8㎡
	Volume of bulk material at 20mm thickness	6L	10.8L	36L	50.4L	100.8L	216L	317L
Shelf	Shelf Temperature	amb~ -50℃~ +80℃ +80℃	amb~ -50℃~ +80℃ +80℃	amb~ -50℃~ +80℃ +80℃	amb~ -50℃~ +80℃ +80℃	amb~ -50℃~ +80℃ +80℃	amb~ -50℃~ +80℃ +80℃	amb~ -50℃~ +80℃ +80℃
	Shelf dimension(W×D)	250×400mm	400×450mm	450×800mm	800×450mm	800×900mm	900×1200mm	900×1600mm
	Useable shelf number	3	3	5	7	7	10	11
	Space betwoon shelves	60mm						
Tray	Dimension(W×D×H)	250×400×40mm	400×450×40mm	450×800×40mm		400×900×40mm	450×1200×40mm	450×800×40mm
	Number	3	3	5	7	14	20	44
Cold trap temperature		-60℃ -85℃	-60℃ -85℃	-60℃ -85℃	-60℃ -85℃	-60℃ -85℃	-60℃ -85℃	-60℃ -85℃
Vacuum displacement		400 L/min	400 L/min	600 L/min	800 L/min	1,500 L/min	4,200 L/min	6,300 L/min
Cabinet dimension(W×D×H)		1,100×1,300 ×1,900mm	1,100×1,300 ×1,900mm	1,100×1,900 ×1,900mm	1,800×2,200 ×1,900mm	1,800×2,500 ×1,900mm	2,100×2,800 ×2,000mm	2,100×3,250 ×2,000mm
Defrosting system		Hot gas system / Water spray system						
Power Consumption		220V, 1ph, 60Hz, 8kw	220V, 1ph, 60Hz, 10kw	380/220V, 3ph 60Hz, 15kw	380/220V, 3ph, 60Hz, 30kw	380/220V, 3ph, 60Hz, 40kw	380/220V, 3ph, 60Hz, 75kw	380/220V, 3ph, 60Hz, 100kw
Condenser type		Air-borne cooling / Water-borne cooling						

- Specifications can be changed for improving the quality of our products
- A variety of optional features are available
- The cold trap of -85℃ is optional

Address : #446-2, Mogok-Dong, Pyungtaek-City, Kyunggi-Do, 459-040 KOREA
Phone & Fax : Phone (+82-31-666-8614) Fax (+82-31-666-8618)
E-mail : ceo@biocryos.co.kr URL http://www.biocryos.co.kr

Deep Freezer

CHEST TYPE

More durable and high temperature stable than the upright type
because of minimizing operation rate

CHARACTERISTICS

- Internal voltage booster
- High stability at ultra low temperature
- Minimizing internal temperature fluctuation
- Doubling durability by minimizing the equipment operation rate
- Stabilized internal temperature despite opening and shutting the door frequently
- Using environmentally friendly non-CFC refrigerant

Ultra Low Temperature Freezer

Model	Temperature range	Capacity	Interior dimension	* Exterior dimension	Power
UF9010	- 40℃ ~ - 90℃	101 liter	300 W × 500 D × 675 H mm	1000 W × 760 D × 1022 H mm	220 V, 1 ph
UF9020		202 liter	600 W × 500 D × 675 H mm	1300 W × 760 D × 1022 H mm	
UF9030		303 liter	900 W × 500 D × 675 H mm	1600 W × 760 D × 1022 H mm	
UF9040		405 liter	1200 W × 500 D × 675 H mm	1900 W × 760 D × 1022 H mm	

※ The size of lock, handle and hinge are excluded

Low Temperature Freezer

Model	Temperature range	Capacity	Interior dimension	* Exterior dimension	Power
UF4510	- 20℃ ~ - 45℃	101 liter	300 W × 500 D × 675 H mm	1000 W × 760 D × 1022 H mm	220 V, 1 ph
UF4520		202 liter	600 W × 500 D × 675 H mm	1300 W × 760 D × 1022 H mm	
UF4530		303 liter	900 W × 500 D × 675 H mm	1600 W × 760 D × 1022 H mm	
UF4540		405 liter	1200 W × 500 D × 675 H mm	1900 W × 760 D × 1022 H mm	

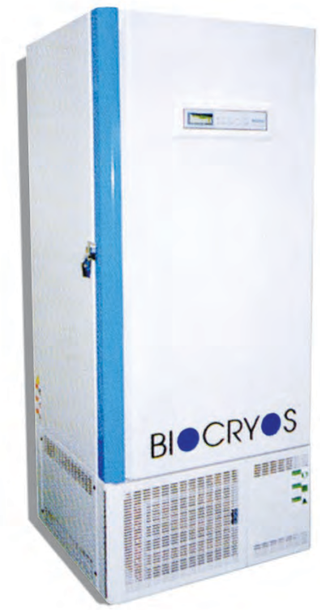
※ The size of lock, handle and hinge are excluded

BIOCRYOS BIOCRYOS CO., LTD.

Laboratory Equipments

Deep Freezer

UPRIGHT TYPE



Maximizing the space utility
and locating the control system at the eye level

CHARACTERISTICS

- Internal voltage booster
- Minimizing the occupied space
- Convenient entry and exit of the samples/materials by installing the internal shelves
- Easy check-up of equipment conditions by locating the control system at the eye level
- Nearly perfect heat insulation by using the internal door with several angles and double gaskets
- The table top model suitable for small quantities of the samples/materials
- Using environmentally friendly non-CFC refrigerant

Ultra Low Temperature Freezer

Model	Temperature range	Capacity	Interior dimension	* Exterior dimension	Power
UF8606	- 40℃ ~ - 86℃	64 liter	500 W × 430 D × 300 H mm	760 W × 700 D × 885 H mm	220 V, 1 ph
UF8640		385 liter	590 W × 510 D × 1280 H mm	850 W × 780 D × 1995 H mm	
UF8650		498 liter	590 W × 660 D × 1280 H mm	850 W × 930 D × 1995 H mm	
UF8660		612 liter	725 W × 660 D × 1280 H mm	985 W × 930 D × 1995 H mm	

※ The size of lock, handle and hinge are excluded

Low Temperature Freezer

Model	Temperature range	Capacity	Interior dimension	* Exterior dimension	Power
UF4006	- 20℃ ~ - 45℃	64 liter	500 W × 430 D × 300 H mm	760 W × 700 D × 885 H mm	220 V, 1 ph
UF4040		385 liter	590 W × 510 D × 1280 H mm	850 W × 780 D × 1995 H mm	
UF4050		498 liter	590 W × 660 D × 1280 H mm	850 W × 930 D × 1995 H mm	
UF4060		612 liter	725 W × 660 D × 1280 H mm	985 W × 930 D × 1995 H mm	

※ The size of lock, handle and hinge are excluded

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E-mail : ceo@biocryos.co.kr URL http://www.biocryos.co.kr

CHC-001

Arm Hood

■Local Extractor System protects personnel from toxic gases where it happens of narrow place in laboratory

FEATURE

- Easy to turn and move
- Damper adjustment for control of airflow
- Save energy better than conventional Fume hood

SPECIFICATION

- Pipe holder : PP
- pipe : PP Φ75
- Dome Hood : Acrylic, Aluminum, PP
- Bracket : Steel plate 2.3t (Epoxy powder coated)

CHC-051

Ductless Hood

■Optimum filters can be selected depending upon various kinds of fumes occurred during experiments.
Replacement of filters can be found to be much easier and convenient for all users.

CHC-200

Clean Bench

FEATURE

- Protect users from harmful substances.
- Clean laboratory environment is not be hampered.
- Excellent in drug and heat resistance
- High cleanliness can be maintained due to the use of high efficient Hepa Filter.
- Life span of the filter can be checked using Hour Meter and Mano Meter.

SPECIFICATION

- clinical pathology
- Dealing with lethal bacteria
- Epidemic bacteria
- Semi-conductor Industry
- Pharmacy & Medical field

C.H.C. CHC LABORATORY CO., LTD.

Laboratory Equipments

CHC-063

Ductless Storage Cabinet

■It is easy to be installed and it is movable. Various options can be chosen and installed inside the cabinet. Safe and enjoyable experiment shall be carried out.
■All models of the storage cabinet are equipped with microprocessor that can display the status of the storage cabinet
■One of the options users can choose is Measuring kit that can detect saturation of the filters, so that a decision whether the filters should be replaced can be easily made.
■Drawers are installed at the botton of the cabinet, so that exposure of harmful materials can be minimized.
■Doors are made of visible materials that have strong chemical resistance. Safe maintenance of the stored bottles is very well enough to last for a long time due to total elimination of noxious gases, vapors and smell.

CHC-101

Fume Hood

SPECIFICATION

- Exterior
- SS 41 Plate with powder coated
- Interior
- Trespa
- Work top
- Trespa
- Window
- Safety clear glass(5t)
- Two cock valves
- Receptacle : 220V

Option

- Work top : Epoxy resin
- Exterior : Trespa
- Spray Nozzle (Side:2, Center:1)
- Cock valve addition
- Blower (SUS/PVC)
- 110V is available

■ Address : 534 Yongsan-dong, Yuseung-gu, Daejeon-city Korea
■ Phone & Fax : Phone (+82-42-933-0036) Fax (+82-42-933-0039)
■ E-mail : chc@chclab.com URL http://www.chclab.com

MSH-20A / MSH-20D

Hotplate Stirrer

- Excellent Superior Temperature Uniformity : Less than 3% on the plate at current temperature
- Excellent Smart Design of Body : made by Aluminum Die-Casting
- Excellent Ceramic Coated Plate-Chemical/Acid Resistance

MSH-20D

- Digital Feedback control by High-Performance Microprocessor
- The Ergonomic Article for precise-control of HEAT, STIRRING -speed, and TIME Jog-Shuttle switch (Turn + Push)
- User self-compensation function : to control Difference between Real Temp. (±10℃)
- Storage function, Timer, Alarm, LCD display
- Locking Mode supported for Experimental Safety (Input to Jog-Shuttle can be disabled)

H T-50X / HS-100D

Overhead Stirrer

- Digital Feedback Control: Steady and Constant Stirring Speed against the viscosity change of sample during reaction.
- Extremely convenient user interface by jog-shuttle switch (Multi-functional turning knob: Turning + Push)
- Over-Load Protection and Over-Heat Protection Functions for motor
- Smooth Start and Change of the Stirring Speed
- Storage Function for Set Values: RPM and Timer
- Digital LCD Display for RPM, Power Bar Graph and Status
- The Position (height) of Impeller is adjustable

SHO / SHR

Digital Shaker

- Ideal for Culturing Cells to Hybridization, Staining and Distaining Gels, and Combinatorial Chemistry.
- Optimal Platform Rotation for Intensive Mixing
- Brushless DC motor (Low Noise & Long Life Cycle)
- High Precision Digital Rotation Speed Control
- Programmable operation modes supported
- Convenient Setting of Timer and Speed using Jog Shuttle Switch
- Smooth Start and Change of the Shaking Speed
- Universal Platform for Easy and Fast Fixation of Any Kind Flasks and Bottles (Option), Over-Load Protection
- Storage function, Alarm
- Locking Mode supported for Experimental Safety (Input to Jog-Shuttle can be disabled)

Wisd DAIHAN Scientific Co., Ltd.

Laboratory Equipments

W OF / WIG

Dry Ovens / Incubators

- Digital Fuzzy Control System Implementing Superior Temperature Accuracy
- Simplest Control by Jog-Shuttle Switch
- Innovative Ease-to-Use Controller Built On Door
- High-Quality LCD with Back-Light Function Used
- RS232C Interface for Monitoring and Controlling with PC
- Stainless Steel Chamber and Chrome-coated Shelves - Corrosion Resistance
- Safety Device : Over Temp. Protection, Over Current Leakage Breaker
- Locking Mode supported for Experimental Safety (Input to Jog-Shuttle can be disabled)

W C R

Refrigerated Circulator

- Innovative Easy-to-Use Digital Fuzzy Controller.
- Simplest Control by Jog-Shuttle Switch and Digital LCD display.
- Digital Timer Function : 'Delay Time' and 'Operation Time' can be controlled.
- Possible Connection with Evaporator or viscometer.
- User's Self-compensation function to control Difference between Real Temperature and Indicated Temperature.
- Warning and Auto-Stop function for Shortage of Liquid.
- Auto-controlled Refrigerating System with protection of compressor and Power Saving.
- Digital LCD with Back-Light Function.
- Safety Devices : Over temp protection, over current & leakage breaker.
- CFC-free (404A) Refrigeration System.

W GD / WUV

Gel Doc. System / UV Transilluminators

- Digital CCD camera (resolution 0.3 million pixels) with portable darkroom is offered.
- Very compact portable darkroom system enables the existing transilluminators in the lab to be used together with. High flexibility in use is offered.
- High-quality optical lens with Zoom, Focus and Iris control (manual adjust) is used.
- USB 2.0 interface is available, through which real-time images are transferred directly to PC. By use of GelViewer™ software, easy and fast capture of gel image and analysis could be made very easily.
- S-Video output is available. The camera can be connected to CRT monitor or video thermal printer.
- GelViewer™, real-time image capturing/analysis software is supplied together with the system - FREE !!!
- Can be used in both Etbr and SyBr bands
- Can be used for Quantitative analysis
- High (100%) / Low (75%) Intensity Switch
- UV Protection shield

Address : 24-4, Sangwolgok-Dong, Sungbuk-Gu, Seoul, Korea, 136-120
Phone & Fax : Phone (+82-2-967-5235 Ext.129) Fax (+82-2-963-5231)
E-mail : daihan@daihansci.co.kr URL http://www.DAIHAN-Sci.com

DS-54GLP Plant Growth Chamber

FEATURE

- LCD displayed full microprocessor program touch 11step control(Temperature, Humidity, Illumination)
- Temperature : 0℃ to 60℃/ ±0.2℃ at 25℃
- Humidity : 30 to 98% RH / ±0.8% at 70%
- Illumination : HID 3ea, F.L 40W × 12sets / 24hr10min / 0~50,000Lux
- Dimensions(in) : 1400 × 800 × 1200(W × D × H)mm
  (out) : 2010 × 940 × 2190(W × D × H)mm
- Shelves : SUS 3ea, Adjustable
- Power : 220V, 50/60Hz, 6Kw, 27A, 1phase

DS-52G4PC CO2 & Plant Growth Chamber

FEATURE

- LCD displayed full microprocessor program touch 11step control(Temperature, Humidity, Illumination, CO2)
- Temperature : 0℃ to 60℃/ ±0.1℃ at 25℃
- Humidity : 30 to 98% RH / ±0.5% at 70%
- CO2 : 0~5000 ppm / ±20 ppm at 1000 ppm
- Illumination : F.L 40W × 18sets / 24hr10min / 0~23,000Lux
- Dimensions(in) : 600 × 600 × 1200(W × D × H)mm
  (out) : 820 × 900 × 1900(WxDxH)mm
- Shelves : SUS 3ea, Adjustable
- Power : 220V, 50/60Hz, 3Kw, 14A, 1phase

DS-52G Plant Growth Chamber

FEATURE

- LCD displayed full microprocessor program touch 11step controller(Temperature, Humidity, Illumination)
- Temperature : -5℃ to 70℃ / ±0.1℃ at 25℃
- Humidity : 30 to 96% RH / ±1% at 70%
- Illumination : F.L20W × 8sets (1dimension type, Ceiling)
- Dimensions(in) : 1100 × 600 × 500(W × D × H)mm
  (out) : 1260 × 760 × 800(W × D × H)mm
  (out door chamber) : 400 × 500 × 800
- Power : 220V, 50/60Hz, 3Kw, 14A, 1phase
- No vibration!
- No stress!
- No noise!

DASOL SCIENTIFIC CO., LTD.

DS-3CIO Multi Purpose Chamber(Dry, Incubator, Cold)

FEATURE

- Drying chamber : Ambient to 260℃/ ±0.3℃ at 140℃
- Incubator chamber : -5℃ to 80℃/ ±0.1℃ at 25℃
- Cold lab chamber : 0℃ to 10℃/ ±0.2℃ at 4℃
- Temp. controller : Microprogram no-revision C.P.U auto tune P.I.D controller(1ea/per room)
- Time : 99Hr 59min or Hold
- Dimensions(in) : 550 × 500 × 500(W × D × H)mm × 3rooms
  (out) : 990 × 770 × 1920(W × D × H)mm
- Shelves : SUS 2ea, Adjustable
- Power : 220V, 50/60Hz, 1phase, 2.6Kw, 12A

Other chamber(4 rooms)

- Constant temp. & Humi., Shaking incubator(DS-14MHSP)

DS-11BPL BOD Incubator

FEATURE

- LCD displayed full microprocessor program touch 11step control(Temperature, Humidity, Illumination)
- Temperature : -5℃ to 70℃/ ±0.1℃ at 25℃
- Illumination : CL40W × 3sets / 24hr10min / 2step
- Dimensions(in) : 500 × 500 × 1000(W × D × H)mm
  (out) : 660 × 780 × 1680(W × D × H)mm
- Power : 220V, 50/60Hz, 3Kw, 14A, 1phase

Other chamber

- DS-10FP : +3℃ to 60℃/ 400 × 400 × 300mm

DS-10 Personal Incubator

FEATURE

- Digital displayed full microprocessor control
- Temperature : Ambient. +5℃ to 80℃ / ±0.01℃ at 37℃
- Time. controller : 99Hr. 59min or Hold
- Dimensions(in) : 400 × 400 × 300(W × D × H)mm
  (out) : 600 × 470 × 370(W × D × H)mm
- Material(in/out) : SUS 304 / SCP-1
- Power : 220V, 50/60Hz, 0.2Kw, 1A, 1phase

Other chamber

- DS-11BWL : -5℃ to 65℃/ 500 × 500 × 500mm(IN)
- DS-10F : +3℃ to 60℃/ 400 × 400 × 300mm(IN)

Address : 570-2 Panweol-dong Gyonggi-do, Republic of KOREA
Phone & Fax : Phone (+82-31-376-1526) Fax (+82-31-377-4264)
E-mail : dasolltd@unitel.co.kr URL http://www.dasolltd.co.kr

DS-310F Shaking Incubator

DS-310RL

DS-300M

DS-310F

FEATURE
- Speed range : 0 - 260 R.P.M
- Temperature : 10℃ to 60℃ / ±0.1℃ at 37℃
- Controller : Digital displayed full microprocessor touch channel controller(99hr.59min. or hold)
- Shaker Size : 500×500×385(W×D×H)mm
- Flask holder : 250ml×25ea (Changeable)
- Power : 220V, 50/60Hz, 1Kw, 4.6A, 1phase

Other
- Temperature : Ambient. +5℃ to 60℃(DS-310S)
- Lamp attached : C.L 40W 1set, C.L 30W 1set(DS-310FL)

DS-10G-S Seed Germinator(Watermelon, Red pepper etc.)

FEATURE
- Digital displayed full microprocessor controller
- Temperature : Ambient. +1℃ to 45℃ / ±0.1℃ at 30℃
- Humidification : Up to 98% RH at 30℃
- Dimensions(in) : 490×500×700(W×D×H)mm
  (out) : 620×620×960(W×D×H)mm
- Material(in/out) : SUS 304 / SCP-1
- Power : 220V, 50/60Hz, 0.3Kw, 1.4A, 1phase

Other size
- Dimensions(in) : 490×500×1000mm(DS-10G-L)

DS-80S Drying Oven

FEATURE
- Type : Natural convection type
- Temp. range : Ambient to 260℃ / ±1℃ at 140℃
- Dimensions(in) : 400×400×400mm(W×D×H)
  (out) : 560×500×700(W×D×H)mm
- Material(in/out) : SUS 304 / SCP-1
- Power : 220V, 50/60Hz, 2Kw, 9.1A, 1phase

Other size
- DS-80-1 : (in)550×500×500mm / Forced convection type

DS-411H Hot Plate

DS-411H

DS-411H-R

FEATURE
- Temp. range : Ambient to 350℃ / ±0.5℃ at 100℃
- Dimensions(plate) : 600×300mm(W×D)
  (out) : 600×370×170(W×D×H)mm
- Plate : Aluminum die-casting with Teflon coating
- Power : 220V, 50/60Hz, 3Kw, 14A, 1phase

Other
- DS-411H-R : Controller independently

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Address : 570-2 Panweol-dong Gyonggi-do, Republic of KOREA
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E-mail : dasolltd@unitel.co.kr URL http://www.dasolltd.co.kr

Laboratory Equipments

DS-21S Water Bath

DS-21S

DS-24S

FEATURE
- Temp. range : Ambient to 99℃ / ±0.1℃ at 37℃
- Dimensions(in) : 295×245×150(W×D×H)mm
  (out) : 330×280×180(W×D×H)mm
- Material(in/out/lid) : SUS304 / SCP-1 / SUS304
- Power : 220V, 50/60Hz, 0.3Kw, 1.4A, 1phase

Other
- Dimensions(in) : 495×290×150mm(DS-21M)
- Dimensions(in) : 600×300×250mm(DS-21L)
- Pump attached water bath(Optional)(DS-21SP)
- Shaking water bath(DS-23SN, DS-24S)

DS-72H Movement type Clean Bench

FEATURE
- Type : Movement type
- Dimensions : 380×200×250(W×D×H)mm
- Door : Acrylic
- Power : AC220V, 50/60Hz

DS-303H Heating Block

FEATURE
- Temp. range : Ambient to 200℃ / ±0.75℃ at 100℃
- Heater : Interchangeable heater
- Dimensions(1 block) : 95×75×50(W×D×H)mm
- Power : AC220V, 50/60Hz, 0.2Kw, 1A, 1phase
- Block diversity
  1.5ml×20tubes, 0.5ml×20tubes, 15ml×12tubes, etc.

DS-304V Vortex Mixer

FEATURE
- Speed range : 30 - 3000 rpm
- Speed controller : Electronic solid state controller
- Operation : Touch automatic and manual type
- Dimension : 120×170×130(W×D×H)mm
- Material : Aluminum die-casting with powder coating
- Standard Accessory : Single Cup tubes head
- Power : AC220V, 50/60Hz, 0.3Kw, 1.4A, 1phase

EH-HB-140E,140L

Hydraulics Bench

EH-HB-140E

EH-HB-140L

FEATURE

- Self contained and fully mobile service unit for the water circulation and flow rate measuring support for Eunha Fluid mechanics and Hydraulics Instruments : - Bernoulli's theorem apparatus
  - Flow measuring apparatus
  - Orifice and jet apparatus & etc.

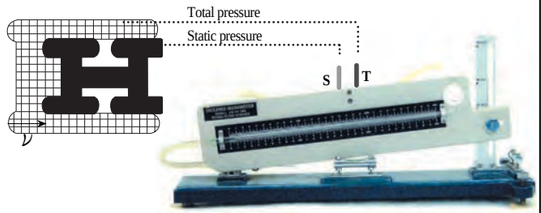
Continuous flow monitoring and the exact flow rate measurement.
An open channel and ample working space on the bench top for various experiment.
Supplied as standard Accessories, 3 type of weirs.

SPECIFICATIONS

MODEL	EH-HB-140E	EH-HB-140L
Open channel	23W×17H×80L(㎝)	70W×100H×120L(㎝)
Pump & motor	Magnetic coupling pump	
	Total head(Max) : 8m	12m
	220V(60Hz)	220V(60Hz)
	90(Out)~170(In)W	150(Out)~290(In)W
	70ℓ/min (Max)	110ℓ/min (Max)
Sump tank	Capacity : 150ℓ(Max)	
Volumertric measuring tank	35 ℓ(Max)	
Sight tube & scale	0~40 ℓ(Max)	
Weight	110㎏	131㎏
Pressure gauge (delivery)	0~2 ㎏/㎠	
Flow meter	4~40 ℓ/min (Max)	
Dimensions	70W×100H×120L(㎝)	70W×100H×160L(㎝)

EH-IM-100

Inclined Manometer



SPECIFICATIONS

Measuring range	100 (3:1)	60 (5:1)	30 (10:1)	15 (20:1)
Differential pressure (mmAq)	0~100	0~60	0~30	0~15
Minor divisions (mm)	0.33	0.2	0.1	0.05
Full scale range	300mm			
Velocity (Max.)	40m/sec			
Gauge fluid	Alcohol or Water			
Weight (Approx.)	3kg			
Dimension (Approx.)	520L×240H×160W (mm)			
※ Option	Pitot tube			

EH-FVC-15

Flow Visualization Apparatus

FEATURE

- Visualize the flow patterns associated with submerged models in open channel. The silent flow to wide open channel (10 x 150 x 700 mm) of one side observation is obtained through pass round glass marbles. Array of 10 injection needles makes sharp parallel lines. Acceptable not only the 6 shaped supplied models but any shaped self made models also.

SPECIFICATIONS

Dye injection needles	10 ea.
Dye reservoir capacity	0.4ℓ
Channel (Acryl)	Width - 10mm, Depth - 150mm, Length - 700mm
Water head tank	180W×180D×400H(mm)
Flow rate (Max.)	3.5ℓ /min
Undershot weir	10mm (wide)
Dimensions (Approx.)	1030L×800H×350W (mm)

EUNHA FLUID SCIENCE

Model EH-JIM-M8

Jet Impact

FEATURE

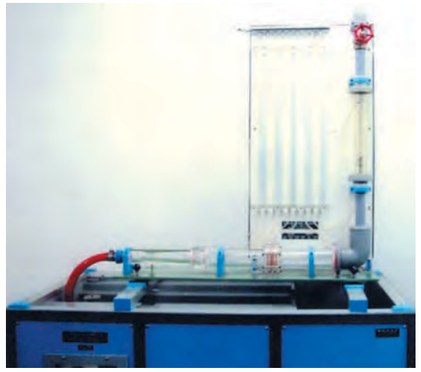
- Demonstrate the force of water jet impinging to stationary object.
- For the best performance, connect to Eunha Hydraulics bench(EH-HB-140/140E) is essential.
- On the upper end of this stem is mounted a weight container.
- The dead weight of the moving parts is counter-balanced by a compression spring.
- Total of three targets are provided; a flat plate, a 120 degree cone and a hemispherical cup.

SPECIFICATIONS

Nozzle diameter	8mm
Target (PVC)	Flat plate : 35ϕ Cone type : 40ϕ (120 degree cone) Hemispherical cup : 40ϕ
Tank (Cylindrical)	150ϕ×300H (mm), Transparent acryl
Flow rate	20ℓ /min (Max.)
Drain hole (Outlet)	25A
Dimension	250ϕ×50H (cm)
Standard accessories	• Weight : 100gr - 2 ea, 50gr - 2 ea, 20gr - 3 ea, 10gr - 3 ea, 5gr - 2 ea. • Target : Flat plate, Cone (120 Degree), Hemispherical cup - 1 ea. • L-Wrench : 5/32″ - 1 ea.

EH-FVO-G

Flow Measuring Apparatus



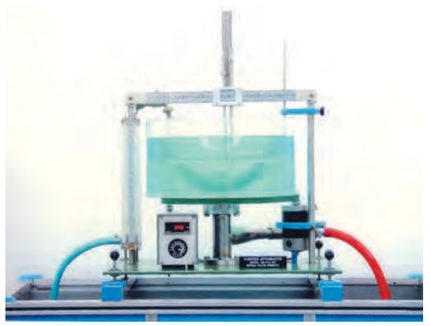
FEATURE

- A serial connection of Venturi, Orifice meter and 90 degree Elbow pipe with proprietary rotameter with tappings of prior or after each of devices.

The 9 lane of vertically installed manometer tube is connected to each of devices so that they can shows energy loss of flow water.
Determine of flow rate and pressure drops using a Venturi Meter, an Orifice Plate, 90 degree Elbow pipe and a Rotameter and Demonstrate the Bernoulli's Equation.
Measure the head loss across the devices of a sudden enlargement and sudden reduction.
For the best performance, connect to Eunha Hydraulics bench(EH-HB-140/140E) is essential.

EH-VTX-400

Vortex Apparatus



SPECIFICATIONS

Rotating vessel	Transparent acryl
	Diameter (O.D) : 400㎜ (Approx)
	Deep : 190㎜ (Approx)
Spiral perforated cylinder	Transparent acryl
	Diameter (O.D) : 300㎜ (Approx)
	Deep : 190㎜ (Approx)
Speed Variation	DC voltage regulator : rpm 140 (Max)
	(Inlet voltage : AC 220V, 70W, 60Hz)
Probe, linear scale	Horizontal : 400㎜
	Vertical : 180㎜
Dimension (Approx.)	600W×700H×450L(㎜)
Weight	25.5㎏

■ Address : 13-450 Seongsu1ga-dong Seongdong-gu Seoul. KOREA
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■ E-mail : ykw@ehf.co.kr URL http://www.ehf.co.kr

EH-OJ-400H Orifice and Jet Apparatus

FEATURE

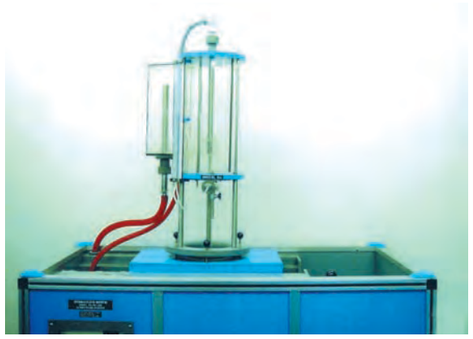
- Scaled head tank with height and water level adjustable overflow unit.
  3 sets of vertically attached moveable orifice of different diameter (3, 6, 9mm),
  The 10 needles represent the detail of trajectory of flow jet.
  Two magnetic strips hold graph paper on the support back board.
  Connect to Eunha Hydraulics bench(EH-HB-140/140E) is highly recommended.

RANGE OF EXPERIMENTS

- Experimentally determine the velocity coefficient for small orifices, 3, 6 and 9mm dia.

Calculate the coefficient of discharge for a small orifice under the flow of constant and varying head.
Demonstrate the Torricelli's law for the flow energy.

EH-FO-13M Flow Through an Orifice



SPECIFICATIONS

Standard orifice	13㎜ Dia.
Head (Max.)	390㎜
Cylindrical tank (Acryl)	180 ϕ × 40H (cm)
Inlet pipe (With dissipator)	19㎜
Overflow pipe (Variable head)	22㎜
Overflow tank (Acryl)	100D × 110W × 270H (㎜)
Flow rate (Approx.)	18ℓ /min
Traverse mechanism	Lead screw with adjusting nut calibrated
	1/10(mm) per division (With pitot tube)
Dimension (Approx.)	340 ϕ × 800H (㎜)

FEATURE

- Full analysis of Vertical water jet and orifice flow.
- Direct measurement of total head, head loss and diameter of jet.
- Integral pitot traverse tube.
- Determination of the actual discharge coefficient by measuring the flow rate.
- For the best performance, connect to Eunha Hydraulics bench(EH-HB-140/140E) is essential.

EH-FF-2000 Fluid Friction Apparatus

FEATURE

- Total 14 devices with manometer tabs are arranged in a single board.
- Energy loss experiments due to the friction of fluid flows of any conditions are performed accurately.
- Multiple lanes of manometers, two u-tube mercury and three pair of water manometer measures the pressure head of 5 devices simultaneously.
- Eunha Hydraulics bench(EH-HB-140/ 140E) included.

RANGE OF EXPERIMENTS

- Fluid Friction in a smooth bore pipe
- Head loss due to friction & pipe fittings
- Head loss due to Sudden Contraction & Enlargement
- Fluid Friction in a roughened pipe
- Flow measurement using differential head (Orifice, Venturi, Pitot-tube)

EUNHA FLUID SCIENCE
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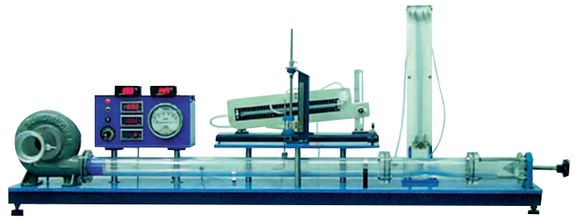
Laboratory Equipments

EH-HEW-1500 Heat Exchanger

SPECIFICATIONS

Heat exchanger (Concentric tube)	Tube (Copper) : 16mm O.D. Wall Thickness : 1.0mm Effective length : 1.5m	
Working temperature	80℃ (Max.)	
Temperature controller	Digital, Accuracy	: ±0.5℃
Temperature indicator (Digital)	6 Points (6ea.) Accuracy approx. Thermocouple	 : ±0.5℃ : Pt 100Ω
Circulating pump	Magnetic coupling pump Capacity Max. temp	 : 7ℓ /min : 80℃
Heater (Immersion type)	220V(60Hz), 2.4kw	
Heater regulator	Thyristor controlled	
Sump tank	Capacity : 24ℓ (Max.), Stainless steel	
Flow meters	1~7ℓ /min (Hot water), 1~7ℓ /min (Cold water)	
Dimensions	125H × 85W × 60D (cm)	

EH-FTR-C50 Fan Test Rig



SPECIFICATIONS

Centrifugal	Flow rate Rotational speed Drive motor	: 200~250m3/h : 0~3600rpm : DC 90V, 0.1KW
Duct (In)	50mm	
Flow rate control	Throttle Valve	
Flow rate measuring detector	Venturi	
Velocity measuring detector	Pitot tube (with Vertical Traverse)	
Pannel meters (Control Box)	DC volt meter & DC Ampere meter (Digital) Temperature Indicator, Tacho meter (Digital) Differential pressure gauge (Analog) Water Manometer (400mm)	
※ Option	Inclined Manometer	

EH-TFC-200 Tilting Flow Channel

- Demonstrate flow behaviors over the various weirs, sluice and slope in a uniform flow of open channel.

SPECIFICATIONS

Working section (Channel)	2200L × 250H × 100W (mm)
Bed slope (Adjustable)	1/120 ~ 5/120cm
Flow meter (Range)	15~150ℓ /m
Pump, Motor	220V(60Hz), 400W 160ℓ /min (Ht=7m)
Sump tank (PVC)	300ℓ (Max.)
Overall dimensions	Hight : 180cm (To top of point gauge) Width : 50cm Length : 310cm
Standard accessories	Hook & Point gauge : 0~180mm Weir • Sharp crestes weir • Ogee weir • Broad crested weir • Crump weir Adjustable sluice gate

◇ In case of quality improvement control specification can be changed without notification and
please make the detailed inquiry for the particular product of interesting.

GMK-303A

GRAIN MOISTURE METERS

MODEL: GMK-303A

MODEL	APPLICATIONS
GMK-303A	RICE, PADDY, SOYBEAN BARLEY, WHEAT, CORN
GMK-303U	BLACK PEPPER, PEANUT, SESAME, RED BEAN, MUNG BEAN, BUCKWHEAT, SUNFLOWER
GMK-303E	MILLET, PEA, RAPESEED, RYE, BARLEY, WHEAT, CORN

• ELECTRICAL RESISTANCE METHOD

GMK-308

POWDER MOISTURE METERS

MODEL: GMK-308

MODEL	APPLICATIONS
GMK-308	WHEAT FLOUR
GMK-320	RED PEPPER POWDER
GMK-330	STARCH (SWEET POTATO, POTATO, CORN)
GMK-350	TOPIOCA

∗ ACCURACY : ±0.5%

GMK-105RF

MULTI-GRAIN MOISTURE METERS

MODEL: GMK-105RF

MODEL	APPLICATION
GMK-105RF	SOYBEAN, CORN, MUNG BEAN, PEANUT, RED BEAN, RAPESEED, MILLET, PADDY, BARLEY, SESAME, CHINESE MILLET, WHEAT
GMK-107RF	MILLET, PEA, RYE, BARLEY, WHEAT, CORN

• CAPACITANCE METHOD ADOPTED.
• NON-DESTRUCTIVE TESTING METHOD

GMK-1010

PROBE MOISTURE METERS

MODEL: GMK-1010

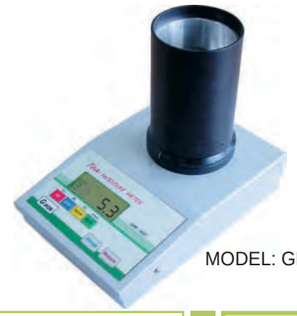
MODEL	APPLICATIONS
GMK-310	RED PEPPER
GMK-1010	WOOD
GMK-3306	TOBACCO LEAVES
GMK-3308	HAY
GMK-340	VANILLA BEANS

∗ ACCURACY : ±0.5%

G-WON HITECH CO., LTD.

GMK-305T

OTHER MOISTURE METERS

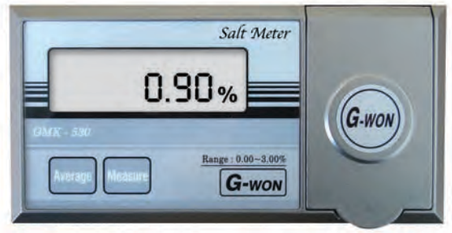


MODEL: GMK-305T

MODEL	APPLICATIONS
GMK-305T	TEA LEAVES
GMK-307C	COFFEE BEANS
GMK-315	HONEY
GMK-503	SEED
GMK-503A	SEED

GMK-530

DIGITAL SALT METERS



MODEL: GMK-530

MODEL	MEASURING RANGES	ACCURACY
GMK-530	0.00 % - 3.00 %	± 0.05 %
GMK-540	0.0 % - 5.0 %	± 0.2 %
GMK-550	0.0 % - 10.0 %	± 0.2 %

• APPLICATION : FOOD SOLUTION

GMK-555

SALT METERS (SALT CHECK)

MODEL: GMK-555

MODEL	MEASURING RANGES	ACCURACY
GMK-535	0.00 % - 3.00 %	± 0.05 %
GMK-545	0.0 % - 5.0 %	± 0.2 %
GMK-555	0.0 % - 10.0 %	± 0.2 %

• APPLICATION : FOOD SOLUTION

GMK-557

SALT METERS (SALT CON.)

MODEL: GMK-557

MODEL	MEASURING RANGES	ACCURACY
GMK-537	0.00 % - 3.00 %	± 0.05 %
GMK-547	0.0 % - 7.0 %	± 0.2 %
GMK-557	0.0 % - 15.0 %	± 0.2 %

• WIDE MEASURING RANGE : 0-15 % (GMK-557)
• TEMPERATURE : 0-100℃

Address : Woolim E-Biz. Center 310, #170-5, Guro-dong, Guro-gu, Seoul. Korea (152-769)
Phone & Fax : Tel (+82-2-2108-1641) Fax (+82-2-2108-1649)
E-mail : g-won@g-won.co.kr URL http://www.g-won.co.kr

GMK-560 DIGITAL SALT METER

MODEL: GMK-560

MODEL	GMK-560	
MEASURING RANGE	0.00 - 15.0 %	
ACCURACY	0.00-3.00%	3.00-15.0%
	± 0.05 %	± 0.2 %

- WIDE MEASURING RANGE : 0-15 %
- TEMPERATURE : 0-100℃

GMK-701AC DIGITAL REFRACTOMETERS (BRIX METERS)

MODEL: GMK-701AC

MODEL	MEASURING RANGES	ACCURACY
GMK-701AC	0-45 BRIX%	± 0.1 BRIX%
GMK-702AC	45-90 BRIX%	± 0.2 BRIX%
GMK-703AC	0-32 BRIX%	± 0.1 BRIX%
GMK-704R	0-60 BRIX%	± 0.2 BRIX%
GMK-705AC	25-72 BRIX%	± 0.1 BRIX%

- AUTOMATIC CALIBRATION (EXCEPT GMK-704R)
- RESOLUTION : 0.1 BRIX %

GMK-703F DIGITAL SUGAR METER

MODEL: GMK-703F

MODEL	GMK-703F
MEASURING RANGE	0 - 28 BRIX %
RESOLUTION	0.1 BRIX %
ACCURACY	± 0.2 BRIX %

- AUTOMATIC TEMPERATURE COMPENSATION
- USEFUL FOR VARIOUS KINDS OF FRUITS

GMK-835 DIGITAL ACIDITY METERS

MODEL: GMK-835

MODEL	MEASURING RANGES	ACCURACY
GMK-835	CITRUS	CITRIC ACID
GMK-835A	ORANGE	CITRIC ACID
GMK-835B	PINEAPPLE	CITRIC ACID
GMK-845	GRAPE	TARTARIC ACID
GMK-855	APPLE	MALIC ACID
GMK-855A	PEAR	MALIC ACID

- ACCURACY : ± 0.05 %

G-WON HITECH CO., LTD.

GMK-510 SALINITY REFRACTOMETERS

MODEL: GMK-510

MODEL	GMK-510	GMK-520
MEASURING RANGE	0 - 100‰ (per mill)	0 - 28 %
ACCURACY	± 2‰ (per mill)	0.2 %
RESOLUTION	1‰ (per mill)	0.1 %

- USEFUL FOR MEASURING THE SALT CONCENTRATION OF SEAWATER & SALT WATER
- AUTOMATIC TEMPERATURE COMPENSATION

GMK-706R BRIX-ACIDITY METER

MODEL: GMK-706R

MODEL	GMK-706R
MEASURING RANGES	SWEETNESS : 0-45 BRIX % SOURNESS : 0-3.5 %
ACCURACY	SWEETNESS : ± 0.2 BRIX % SOURNESS : ± 0.05 %

- FOR MEASURING BOTH SWEETNESS (BRIX %) AND SOURNESS (ACIDITY %)
- MEASUREMENT RESULTS CAN BE PRINTED

GMK-930HT THERMO-HYGROMETERS

MODEL: GMK-930HT

MODEL	GMK-920HT	GMK-930HT
MEASURING RANGES	TEMP. : - 50 ~ +200 ℃ HUMIDITY : 5 %RH - 95 %RH	
ACCURACY	TEMP. : ± 0.3 ℃ HUMIDITY : ± 2 %RH	
RESOLUTION	TEMP. : 0.1 ℃ HUMIDITY : 0.1 %RH	

- FOR MEASURING HUMIDITY AND TEMPERATURE

GMK-910T DIGITAL THERMOMETER

MODEL: GMK-910T

MODEL	GMK-910T
MEASURING RANGE	- 50 ~ +200 ℃
ACCURACY	± 0.3 ℃
RESOLUTION	0.1 ℃

- 4-WIRE PT 100 PLATINUM RTD SENSOR

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E-mail : g-won@g-won.co.kr URL http://www.g-won.co.kr

P.NIX Power Series (RO & UP)

Water Purification System

FEATURES

- Certified CE, ISO 9001, GD, QD mark
- Built-in RS 232C Port
- Built-in Volumetric dispensing function

SPECIFICATIONS

	P.NIX Power I	P.NIX Power II	P.NIX PowerIII
Product (RO, UP)	Max. 15L/Hr	Max. 25L/Hr	Max. 35L/Hr
Water Quality	-Pure Water: 0.0 to 30.0 ㎲/cm -Ultra Pure: Up to 18.3 MΩ -cm		
Controller functions	1) Self test for external & internal system 2) Auto cleaning and monitoring function 3) Filter exchange indicator 4) Auto monitoring of Feed water quality		
Dimensions(W × D × H)	400 × 567 × 500mm		
Power	230V(110V on request), 50/60Hz, 60W		

- P.NIX Power Series, P.NIX RO Series, P.NIX UP Series

Zeneer RO Series

Pure Water System

FEATURES

- Certified CE, ISO 9001, GD, QD mark
- Built-in RS 232C Port
- Built-in Volumetric dispensing function

SPECIFICATIONS

	Zeneer RO 180	Zeneer RO 280	Zeneer RO 380
Product (RO)	Max. 15L/Hr	Max. 25L/Hr	Max. 35L/Hr
Water Quality	-Pure Water: 0.0 to 30.0 ㎲/cm		
Controller functions	1) Self test for external & internal system 2) Auto cleaning and monitoring function 3) Filter exchange indicator 4) Auto monitoring of Feed water quality		
Dimensions(W × D × H)	300 × 460 × 460mm		
Power	230V(110V on request), 50/60Hz, 60W		

Zeneer UP System

Ultra Pure Water System

FEATURES

- Certified CE, ISO 9001, GD, QD mark
- Built-in RS 232C Port
- Built-in Volumetric dispensing function

SPECIFICATIONS

	Zeneer UP 900
Product (UP)	1.2L/min
Water Quality	-Ultra Pure: Up to 18.3MΩ -cm
Controller functions	1) Self test for external & internal system 2) Auto recirculation function 3) Filter/UV Lamp exchange indicator 4) Auto monitoring of Feed water quality
Dimensions(W × D × H)	300 × 460 × 460mm
Power	230V(110V on request), 50/60Hz, 60W

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E-mail : human@humancorp.co.kr/ info@humancorp.co.kr URL http://www.humancorp.co.kr

Laboratory Equipments

New Human Power Series (RO & UP)

Water Purification System

FEATURES

- Certified CE, ISO 9001, GD, QD mark
- Programming by 2 steps of water quality for the filter exchange.
- Very simple to exchange the Filter-Pack (Molding Type)

SPECIFICATIONS

	New Human Power I	*New* Human Power II	*New* Human Power III
Product (RO, UP)	Max. 15L/Hr	Max. 25L/Hr	Max. 35L/Hr
Water Quality	-Pure Water: 0.0 to 30.0 ㎲/cm -Ultra Pure: Up to 18.3 MΩ -cm		
Controller	1) Self test for external & internal system 2) Auto cleaning functions 3) Filter exchange indicator		
Dimensions(W × D × H)	400 × 567 × 500mm		
Power	230V(110V on request), 50/60Hz, 60W		

- New Human Power Series, New RO Series, New Human UP Series

Nex Power Series (RO & UP)

Water Purification System

FEATURES

- Certified ISO 9001
- Produce Pure water & Ultra Pure water, simultaneously
- Very simple to exchange the Filter-Pack

SPECIFICATIONS

	Nex Power 1000	Nex Power 2000	Nex Power 3000	Nex Power 4000
Product(RO, UP)	Max. 15L/Hr	Max. 25L/Hr	Max. 35L/Hr	Max. 45L/Hr
Water Quality	-Pure Water : 0 to 30㎲/cm -Ultra Pure : Up to 18.3MΩ -cm			
Display	Digital Display (RO : 0 to 200㎲/cm) (UP : 1 to 18.3MΩ -cm)			
Dimensions(W × D × H)	400 × 570 × 500mm			
Power	230V(110V on request), 50/60Hz, 60W			

- Nex Power Series, Nex RO Series, Nex UP Series

Silent Pilot RO System

Water Purification System

FEATURES

- Certified ISO 9001 (Certified No : K-920)
- Motor should be silent when the system works.
- Built in the double safety systems (Pump / Motor)

SPECIFICATIONS

	Silent RO 200P	Silent RO 400P
Product	100-200L/Hr	300-400L/Hr
Water	-Pure Water : 0 to 50㎲/cm	
Quality	-Ultra Pure : Up to 18.3MΩ -cm (Option)	
Display	LED digital Display	
Dimensions(W × D × H)	500 × 450 × 1415mm	
Power	220V(110V on request), 50/60Hz, 1KW	

DEEP FREEZER

FEATURE

- Hermetically sealed cooling system with very durable compressors
- Cold air loss is minimized by insulated inner doors
- 130 mm polyurethane foamed insulation
- Cabinet with round corners for easy cleaning
- Quiet running fans and compressors create a very low noise level (+/- 50 dBA)
- Light adjustable HDPE shelf with air circulation hole(No wrenched in -120℃)

Standard Specification Up-Right Freezers Cascade Refrigeration System : -40℃ to -86℃

Model no:	DF8510	DF8514	DF8517	DF8520	DF8524
Capacity	276 liters	369 liters	484 liters	605 liters	730 liters
Ext Dimensions W × D × H mm	920 × 900 × 1740	920 × 900 × 1979	920 × 1050 × 1979	1070 × 1050 × 1979	1070 × 1180 × 1979
Int Dimensions W × D × H mm	600 × 480 × 960	600 × 480 × 1280	600 × 630 × 1280	750 × 630 × 1280	750 × 760 × 1280
Weight	294 kg	334 kg	380 kg	410 kg	450 kg
Insulation	130 mm Non CFC, foamed in place polyurethane				
Certifical	ISO9001, ISO14001, CE, EM, KFDA, ETL Certified				

Standard Specification Chest Freezers Cascade Refrigeration System : -40℃ to -90℃

Model no:	DF9007	DF9010	DF9014	DF9017	DF9020
Capacity	191 liters	295 liters	392 liters	492 liters	593 liters
Ext Dimensions W × D × H mm	1280 × 790 × 1030	1590 × 790 × 1030	1880 × 790 × 1030	2180 × 790 × 1030	24800 × 790 × 1030
Int Dimensions W × D × H mm	570 × 500 × 670	870 × 500 × 670	1170 × 500 × 670	1470 × 500 × 670	1770 × 500 × 670
Weight	211 kg	236 kg	261 kg	286 kg	311 kg
Insulation	130 mm Non CFC, foamed in place polyurethane				
Certifical	ISO9001, ISO14001, CE, EM, KFDA, ETL Certified				

ICE - MAKER (FLAKE TYPE)

FEATURE

- One-touch connection system for easy water supply
- Safety System of check ice storage check, with automatic check system.
- Twin screw shaft mechanism
- Automatic system form water supply to ice production

SPECIFICATION

- Specifications of Ice Maker
  - Model No IF300-150
  - Cabinet Dimensions : 700W × 700D × 975H mm
  - Bin Storage Dimensions : 600W × 300D × 500H mm
  - Ice Production : 120 kg / Day
  - Storage Capacity : 90 kg
  - Refrigeration System : 1/3 Hp Compressor
  - Cabinet Material : Blower Molded(High Density Poly Ethylene)

ilShin ILSHINLAB CO., LTD.

FREEZE DRYER

FEATURE

- Automatic Control System: Customer can operate from drying to defrosting by pushing a button at once.
- Automatic Purge System : Automatic purge system prevents backward of vacuum oil to protect sample.

Model no:	FD5508	FD5512	FD5518	FD8508	FD8512	FD8518
ICE Capacity/day	5 liters	10 liters	12 liters	5 liters	12 liters	18 liters
Total Ice Capacity	8 liters	12 liters	18 liters	8 liters	12 liters	18 liters
Cabinet Dimensions	805W × 750D × 885H mm					
Weight	120 kg	122 kg	130 kg	145 kg	147 kg	155 kg
Condenser Temperature	-50℃ to -55℃			-75℃ to -85℃		

PROGRAMMABLE VACUUM FREEZE DRYER

FEATURE

- Using compulsory Circulation method for heat-transmission allows equality of shelf temperature. So sample can be stabilized and equally dried.
- With Touch Screen Control System customer can monitor whole drying procedure and store/print as per customer's need.
- Ice holding method protects refrigeration system by expanding cold trap surface.
- Customer can use manifold drying system when they want to dry separated sample during chamber drying procedure.
- Automatic alarm signal and sound when alarm system is working
- Automatic dial contact five telephone number as per customer's setting

Model No:	PVTFD10R	PVTFD20R	PVTFD30R	PVTFD50R	PVTFD100R
ICE Capacity/day	8 liters	16 liters	24 liters	40 liters	80 liters
Total Ice Capacity	10 liters	20 liters	30 liters	50 liters	100 liters
Condenser temperature	- 70℃ to -80℃				
Shelf temperature	-40℃ to +80℃				
Shelf dimensions(W × D × H)	400 × 500 × 20	500 × 800 × 20	500 × 800 × 20	805 × 1005 × 20	
Shelf Quantity	3+1 = 4 EA	5+1= 6 EA	4+1 = 5 EA	7+1 = 8 EA	7+1 = 8 EA
Refrigeration system	2Hp × 2 EA	3Hp × 2 EA	5Hp × 2 EA	7.5Hp × 2 EA	10Hp × 2 EA
Cabinet dimensions (W × D × H)	1390 × 850 × 1765	1470 × 1023 × 1905	1300 × 1891 × 1895	1450 × 2003 × 2140	1600 × 2415 × 2210
Electrical requirements	220/230V, 50/60Hz, Single/Three phase		380V, 50/60Hz, Three phase		
Vacuum Pump	417 Liters/Min	648 Liters/Min	841 Liters/Min	841 Liters/Min	1600 Liters/Min

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Phone & Fax : Phone (+82-31-867-1384) Fax (+82-31-867-1387)
E-mail : webmaster@ilshinlab.com URL http://www.ilshinlab.com

pH-20N — pH/mV/ORP/Temp(Custom LCD)

FEATURE

- Waterproof(IP66) housing, Backlit custom LCD display
- Fast, accurate and easy to use, RS 232C communication
- Simultaneous display of pH, temp and current time
- Auto(Manual) calibration with choice of buffer(3points)
- Automatic compensation for Temperature
- Low Battery Alarm, Rechargeable Battery
- Data-log up to 100 Points, Auto power-off
- Certificated CE mark, GD mark, ISO 9001

pH-250L — pH/ISE/mV/ORP/Temp(SDIS, One Channel, Graphic Color LCD)

FEATURE

- Wide & clear backlit graphic color LCD display
- Fast, accurate and easy to use, RS 232C communication
- Simultaneous display of pH(mV,ISE), temp and current time
- Auto(Manual) calibration with choice of buffer(3points)
- Automatic compensation for Temp, Alarm displays at high/low limit,
- Available measure by using latest calibration data
- Self diagnostics, Auto-hold, Data-log up to 500 Points
- Certificated CE mark, ISO 9001, Built-in printer (Option)
- Upload the data in Excel format to PC by RS232C cable (SDIS-Option)

EcoMet P15/D35/C65 — Compact Portable Meter

▲EcoMet P15 ▲EcoMet D35 ▲EcoMet C65

Model No	Measuring Parameter
P15	pH/mV/Temp
D35	Dissolved Oxygen/O_2/Temp
C65	Conductivity/Temp
O10	ORP
S60	Salinity/Temp

FEATURE

- Clear custom LCD display
- Fast & accurate and easy to use
- Automatic(2points) calibration & buffer recognition
- Simultaneous display of Data and Temperature
- Automatic (Manual) compensation for Temperature
- Automatic compensation for barometric pressure and salinity
- Easy to use by Automatic O_2 compensation
- Selectable cell constant for accurate measurement

istek, Inc.

DO-30N — DO/O_2/Temp(Custom LCD)

FEATURE

- Waterproof(IP66) housing, Backlit custom LCD display
- Fast, accurate and easy to use, RS 232C communication
- Simultaneous display of DO(O_2,/Air), temp and current time
- Automatic compensation for Temperature
- Using high sensitive polarographic type DO sensor
- Automatic compensation for temp and barometric pressure
- Self diagnostics, Low Battery Alarm, Rechargeable Battery
- Data-log up to 100 Points, Auto power-off
- Certificated CE mark, GD mark, ISO 9001

DO-350L — DO/O_2/Air/pO_2/Temp(SDIS, Graphic Color LCD)

FEATURE

- Wide & clear backlit graphic color LCD display
- Fast, accurate and easy to use, RS 232C communication
- Simultaneous display of DO(O_2,/Air/pO_2), temp and current time
- Automatic compensation for Temp, Alarm displays at high/low limit,
- Using high sensitive polarographic type DO sensor
- Automatic compensation for temp and barometric pressure
- Available measure by using latest calibration data
- Self diagnostics, Auto-hold, Data-log up to 500 Points
- Certificated CE mark, ISO 9001, Built-in printer (Option)
- Upload the data in Excel format to PC by RS232C(SDIS-Option)

EcoMet P25 — Compact Laboratory Meter

▲EcoMet P25

Model No	Measuring Parameter
P25	pH/mV/Temp
D45	Dissolved Oxygen/O_2/Temp
C75	Conductivity/Temp

FEATURE

- Clear custom LCD display
- Fast, accurate and easy to use
- Simultaneous display of pH(mV) with Temp
- Automatic compensation for Temperature
- Available measure by using latest calibration data
- Self diagnostics, Auto-hold, Auto-read stable Data
- Data-log up to 100 Points, RS 232C communication
- Certificated CE mark

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E-mail : istek@istek.co.kr URL http://www.istek.co.kr

EC-40N Conductivity/TDS/Salinity/Temp(Custom LCD)

FEATURE

- Waterproof(IP66) housing, Backlit custom LCD display
- Fast, accurate and easy to use
- Simultaneous display of EC(Salinity/TDS), temp and current time
- Auto hold, Selectable cell constant, Auto ranging
- Automatic compensation for Temperature
- Data-log up to 100 Points, Auto power-off
- Self diagnostics, Low Battery Alarm, Rechargeable Battery
- RS 232C communication
- Certificated CE mark, GD mark, ISO 9001

EC-400L Conductivity/Salinity/Temp(Custom LCD)

FEATURE

- Wide & Backlit custom LCD display
- Fast, accurate and easy to use
- Simultaneous display of EC(Salinity/TDS), temp and current time
- Selectable cell constant, Auto ranging
- Automatic compensation for Temperature
- Data-log up to 100 Points, Self diagnostics
- RS 232C communication, Auto Hold
- Certificated CE mark, ISO 9001

EC-470L Conductivity/TDS/Salinity/Resistivity/Temp(SDIS, Graphic Color)

FEATURE

- Wide & Backlit graphic color LCD display
- Fast, accurate and easy to use, Auto hold
- Simultaneous display of EC(Salinity/TDS), temp and current time
- Selectable cell constant, Automatic compensation for Temp
- Alarm displays at high/low limit, Auto ranging
- Data-log up to 500 Points, Self diagnostics
- RS 232C communication, Built-in printer (Option)
- Certificated CE mark, ISO 9001
- Upload the data in Excel format to PC by RS232C(SDIS-Option)

istek, Inc.

PDC-70N pH/ISE/DO/O_2/Air/EC/Salinity/TDS/Temp(Rechargeable Battery, Graphic LCD)

FEATURE

- Industrial electrodes(pH/DO/EC) are used
- Waterproof(IP66) housing, Backlit graphic LCD display
- Cable length can be adjusted on request (std 3M, Max 100M)
- Fast, accurate and easy to use, Auto hold
- Depth of water 10M(Max), Data-log up to 210 points
- Measure and display of pH(ISE), DO and EC simultaneously
- Fast, Accurate and easy to install, Auto buffer choice
- Selectable cell constant, Auto ranging
- Automatic compensation for Temp and barometric pressure
- Auto power-off, Self diagnostics, Low Battery Alarm
- Rechargeable Battery, RS 232C communication
- Certificated CE mark, GD Mark, ISO9001, KT Mark

*Application : Industrial water, Aqua cultural water, Supplying water and Ground water

PD-600L pH/ORP/ISE/DO/O_2/Air/Temp(SDIS, Dual Channels, Graphic Color LCD)

FEATURE

- Wide and clear backlit graphic color LCD display
- Measure and display of pH(ISE), DO and EC simultaneously
- Fast, Accurate and easy to install, Auto buffer choice
- Selectable cell constant, Auto ranging, Built-in printer (Option)
- Data-log up to 500 points, Alarm displays at high/low limit
- Automatic compensation for Temp and barometric pressure
- Auto power-off, Self diagnostics, Auto hold
- RS 232C communication, Certificated CE mark, ISO9001
- Upload the data in Excel format to PC by RS232C (SDIS- Option)

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E-mail : istek@istek.co.kr URL http://www.istek.co.kr

J-300S / 300M — Forced Convection Drying Oven

Model			J-300S	J-300M
Type			Forced convection system	
Overall size (W×D×H)		m/m	580×600×820	730×650×870
Chamber size (W×D×H)		m/m	450×450×450	600×500×500
Capacity		ℓ	91	150
Temperature	range		Amb + 5℃ ~ 260℃	
	accuracy		± 0.5℃ at 100℃	
	uniformity		± 1.0℃ at 100℃	
	controller		P.I.D controller	
	regulator		SSR type	
Thermocouple			K type(CA)	
Heater(incoloy sheath)		W	1,100	1,200
Circulation fan & motor		Hp	1/36	
Insulation			Glass wool	
Observation window			Reinforced glass	
Safety device			ELB or NFB. overheating protection	
Shelves			3ea	3ea
Material	interior		Stainless steel plate	
	exterior		Steel plate with powder coated finish	
Power source			AC 220V, 50Hz or 60Hz, 1 ø	
Net Weight		kg	51	64

J-DVO1 / DVO 2 — Vacuum Drying Oven

Model			J-DVO1	J-DVO2
Type			Indirect heating(air jacket) & decompressing	
Overall size (W×D×H)		m/m	760×530×580	870×635×680
Chamber size (W×D×H)		m/m	300×350×300	400×450×400
Capacity		ℓ	31	72
Temperature	range		Amb + 5℃ ~ 250℃	
	accuracy		± 1.0℃	
	controller		P.I.D controller	
	regulator		SSR type	
Thermocouple			K type(CA)	
Heater(Ni-Cr)		W	2,000	3,000
Ultimate pressure degree			760mmHg(101.3Kpa)	
Vacuum loss			Less than 3.5Kpa/24Hr	
Insulation			Glass wool	
Observation window			Reinforced glass	
Safety device			ELB or NFB. overheating protection	
Shelves			3ea	
Material	interior		Stainless steel plate(STS#304)	
	exterior		Steel plate with powder coated finish	
Power source			AC 220V, 50Hz or 60Hz, 1 ø	
Net weight		kg	63	97

J-100S / 100M — Gravity Convection Incubator

Model			J-100S	J-100M
Type			Gravity convection system	
Overall size (W×D×H)		m/m	580×600×820	730×650×870
Chamber size (W×D×H)		m/m	450×450×450	600×500×500
Capacity		ℓ	91	150
Temperature	range		Amb + 5.0℃ ~ 60.0℃	
	accuracy		±0.5℃	
	uniformity		±1.0℃	
	controller		P.I.D controller	
	regulator		SSR type	
Thermocouple			Pt 100 ohms	
Heater (Incoloy Sheath)		W	200	300
Timer			Electronic timer with delay timer	
Observation door			Safety clear glass inner door	
Safety device			ELB. overheating protection	
Shelves			3ea	
Material	interior		Stainless steel plate	
	exterior		Steel plate with powder coated finish	
Power source			AC 220V, 50Hz or 60Hz, 1 ø	
Net weight		kg	46.5	59.5

JISICO CO., LTD.

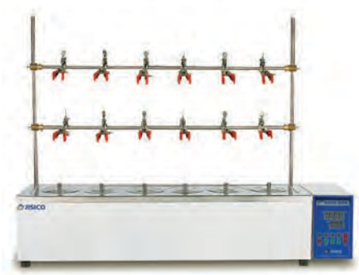
J-IBO2 / IBO3 — BOD Incubator

Model			J-IBO2	J-IBO3
Type			Forced convection system	
Overall size (W×D×H)		m/m	655×820×1,610	765×770×1,810
Chamber size (W×D×H)		m/m	500×500×1,000	600×450×1,200
Capacity		ℓ	250	324
Temperature	range		5℃ ~ 50℃	
	using		5℃ ~ 50℃	
	accuracy		±0.5℃	
	uniformity		±1.0℃ at 25℃	
	controller		P.I.D controller	
	regulator		SSR type	
Thermocouple			Pt 100 ohms	
Heater (Ni-Cr)		W	800	1,000
Circulation fan		W	24	36
Refrigeration compressor		Hp	1/4	1/3
Observation door			Safety clear glass inner door	
Insulation			Glass wool	
Safety device			ELB. overheating protection	
Shelves			3ea	
Material	interior		Stainless steel plate(STS #304)	
	exterior		Steel plate with powder coated finish	
Power source			AC 220V, 50Hz or 60Hz, 1 ø	

J-NSIS — Shaking Incubator

Model			J-NSIS
Shaking type			Rotation type
Overall size (W×D×H)		m/m	460×620×465
Chamber size (W×D×H)		m/m	400×400×110/370
Plat-form size		m/m	300×300
Temperature	range		Amb.+5.0℃~60.0℃
	accuracy		±0.5℃
	uniformity		±1.0℃
	controller		PID controller
	regulator		SSR type
Heater(Ni-cr)		W	300
Capacity			300ml Flask×9ea
Shaking speed		rpm	20~250
Material	interior		Stainless steel plate(STS#304)
	exterior		Steel plate with powder coated finish
Power source			AC 220V, 50Hz or 60Hz, 1 ø
Net weight		kg	33.6

J-BS3D — Soxhlet Water Bath



Model			J-BS3D
Type			6 hole opening type
Overall size (W×D×H)		m/m	1090×270×220
Bath inner size (W×D×H)		m/m	890×170×130
Capacity		ℓ	19
Temperature	range		Amb + 5℃ ~ 100℃
	accuracy		±0.1℃
	controller		P.I.D. controller
	regulator		SSR type
Thermocouple			Pt 100 ohms
Heater(sheath)		W	1,500~2,000
Material	interior		Stainless steel plate
	exterior		Steel plate with powder coated finish
Power source			AC 220V, 50Hz or 60Hz, 1 ø
Net weight		kg	20.7

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E-mail : s67@jisico.co.kr URL http://www.jisico.co.kr

J-RHC1-LCD-T Constant Temp. & Humidity Chamber

Model			J-RHC1-LCD-T
Overall size (W × D × H)		m/m	1,070 × 1,020 × 1,750
Chamber size (W × D × H)		m/m	500 × 500 × 600
Capacity		ℓ	150
Temperature	Range		-20.0℃ ~ +60.0℃
	Accuracy		±0.5℃ at 37.0℃
	Controller	LCD-T	Touch Screen type PLC
	Regulator		SSR
Humidity	Range		35% ~ 95%
	Accuracy		±2% at 40%
	Controller	LCD-T	Touch Screen type PLC
	Regulator		SSR
Thermocouple			Pt 100 Ohms
Heater (Sheath)		W	4,000
Refrigerator	Cooling system		Single stage (air cooling)
	Compressor	Hp	Hermetical type, 1/3 - 1 EA , 3/4 - 1 EA
Insulation			Glass wool
Safety device			C.B. (Circuit Breaker)
Shelves			3 EA
Material	Interior		Stainless steel plate (STS#304)
	Exterior		Steel plate with powder coated finish
Power source			AC230V, 50Hz or 60Hz, 1 Phase

J-MPB Multi-Purpose Water Bath

Water Bath (Basic)

Shaking app & control head

Soxhlet app.

Circulating app.

Model			J-MPB
Shaking Type			Reciprocating type
Overall size (W × D × H)		m/m	820 × 540 × 440(300/140)
Bath inner size (W × D × H)		m/m	580 × 380 × 220
Capacity		ℓ	48.5
Formation (optional accessories) Function	water bath		Basic
	circulating bath		Circulating apparatus
	soxhlet bath		Ring hole 8ea, Clamp holder
	shaking bath		Shaking apparatus
Temperature	range		Amb ± 5℃~95℃
	accuracy		±0.1℃
	uniformity		±0.5℃
	controller		PID controller or programmable controller (option)
	regulator		SSR type
Shaking	range r.p.m		20~250
	control		Feed-back control system
	display		Digital display
	setting		Digital setting
Stroke		m/m	30
Heater		W	3000
Motor	circulating	W	60
	shaking(brushless)	W	20
Safety device			ELB or NFB overheating protection
Material	interior		Stainless steel plate
	exterior		Steel plate with powder coated finish

JISICO CO., LTD.

J-BAL / BAS / BO Water Bath

Model			J-BAL	J-BAS	J-BO
Bath overall size (W × D × H)		m/m	660 × 360 × 440	550 × 350 × 380	500 × 260 × 325
Bath inner size (W × D × H)		m/m	450 × 300 × 200	350 × 250 × 150	300 × 200 × 110
Capacity		ℓ	27	13	6.6
Temperature	range		Amb + 5℃ ~ 98℃	Amb + 5℃ ~ 98℃	Amb + 5℃ ~ 98℃
	controller		Digital setting/display	Digital setting/display	Digital setting/display
	regulator		SSR type	SSR type	SSR type
Heater(sheath)		W	1,500	1,000	550
Power source			AC 220V, 50Hz or 60Hz, 1 ø	AC 220V, 50Hz or 60Hz, 1 ø	AC 220V, 50Hz or 60Hz, 1 ø
Net weight		kg	15.7	11.8	8.8

J-FM2 / FM3 / FM4 Electric Muffle Furnace

Model			J-FM2	J-FM3	J-FM4
Overall size (W × D × H)		m/m	415 × 560 × 550	560 × 610 × 675	690 × 740 × 1,200
Chamber size (W × D × H)		m/m	150 × 300 × 100	250 × 350 × 160	350 × 450 × 400
Capacity		ℓ	4.5	14	63
Temperature	range		Amb + 5℃ ~ 1,200℃(Max)		
	using range		300℃~1000℃		
	controller		PID autotuning controller		
	regulator		SSR type		SSR or SCR
Thermocouple			K type(CA)		
Heater capacity		W	3,000	4,500	14,000
Heating element			Kanthal AF		
Insulation			Fiber. ceramic		
Power source			AC 220V, 50Hz or 60Hz, 1 ø		AC 220V, 50Hz or 60Hz, 3 ø
Net weight		kg	47.35	81.6	

J-NAS3 / NAS4 / NAS5/ NAS6 Automatic Autoclave, Sterilizer

Model		J-NAS4	J-NAS5	J-NAS6
Overall size (W × D × H)	m/m	700 × 500 × 830/1,100	750 × 550 × 830/1,100	800 × 600 × 830/1,140
Inner size (ø × H)	m/m	350 × 650	400 × 650	450 × 650
Capacity	ℓ	62.5	81.6	103
Method sterilization		High pressure system		
Using temperature		121℃		
Using pressure	kg/cm²	1.2		
Temperature regulator		SSR type		
Temp. setting method		Digital setting and display		
Internal air exhaust		About 20 minutes		
Heater(sheath)	W	3,500	4,000	4,500
Timer		Digital setting and display(99 hr 59 min)		
Pressure gauge	kg/cm²	Mechanical type 0 ~ 2		
Basket(STS #304)		2ea		
Power source		AC 220V, 50Hz or 60Hz, 1 ø		
Weight	kg	97.3	107	

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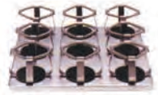
E-mail : s67@jisico.co.kr URL http://www.jisico.co.kr

J-USR / NSS

Shaker

Model		J-USR	J-NSS
Shaking type		Rotation type	Slide
Overall size (W × D × H)	m/m	300 × 360 × 120 (without plat-form)	
Plat-form size (W × D × H)	m/m	300 × 300 × (75~120)	
Stroke	m/m	10~35	
Shaking speed	rpm	35~250	
Motor	Hp	1/20	
Capacity(flask)	mℓ	100 × 16ea / 250 × 9ea / 500 × 6ea	
Power source		220V, 50Hz or 60Hz, 1 ø	
Function		Speed controller and timer	
Net weight	kg	23	21

FC-100, 250, 500
Flask clamps
(100ml, 250ml,
500ml)



FCH-100, 250,
500, 1000
Flask clamps
(spring holder)

TSS-100
Spring rack
(for triple shaker)

SPR-100
Side rack

SSR-100
Spring rack

SUR-100
Universal rack

J-MF

Vortex Tube Mixer

Model		J-MF
Overall size (W × D × H)	m/m	125 × 185 × 160
Speed range	rpm	3,000(Max)
Motor	Hp	1/15
Material		FRP (fiber glass reinforced plastic)
Power source		AC 220V, 50Hz or 60Hz, 1 ø
Net weight	kg	2.6

J-NMS / MS4

Hot-plate Magnetic Stirrer

Model		J-NMS	J-MS4
Overall size (W × D × H)	m/m	200 × 230 × 115	460 × 380/40 × 175
Size (top-plate) (W × D)	m/m	180 × 180	∅150 × 4ea
Temperature (surface)		400℃(Max)	350℃(Max)
Speed	rpm	1,600(Max)	2,000(Max)
Heater(sheath)	W	630	300 × 4
Material (top-plate)		Ceramic coated	Teflon
Function		Temp. & speed controller	Temp. & speed controller
Power source		AC 220V, 50Hz or 60Hz, 1 ø	AC 220V, 50Hz or 60Hz, 1 ø
Net weight	kg	3.5	11.7

JISICO CO., LTD.

J-VSS

Vibratory Sieve Shaker

CE

Model		J-VSS
Shaking type		Vibration type(up/down)
Overall size (W × D × H)	m/m	365 × 460 × 260
Vibration control		Hz control
Controller(vibration time)		Digital setting & display
Vibration mode : 4mode		Interval vibratory motion :3.2.1sec Continuous & vibrative motion
The number of vibrations		130 a time/min
Capacity(sieve)	(ø × H)	8″ × 2″ × 7ea
Material	cover	Aluminum casting
	Interior	steel casting
	exterior	F.R.P
Power consumption	W	500
Power source		AC 220V, 50Hz or 60Hz, 1 ø
Net weight	Kg	23.5

Option : sieves

J-H6S

Kjeldahl Digesting Equipment

Model		J-H6S
Size (W × D × H)	m/m	810 × 170 × 200
Packing Size (W × D × H)	m/m	820 × 220 × 300
Heater(Ni-Cr)	W	500 × 6ea
Temp. controller		6 set
Capacity (flask)	mℓ	250 ~ 800 × 6ea
Motor (fan) Hp	body	Stainless steel plate
	hot plate	Porcelain(korea)
Power source		AC 220V, 50Hz or 60Hz, 1 ø
Weight		18 kg

J-WD / WD1 / WD2

Water Distilling Apparatus

Model		J-WD	J-WD-1	J-WD-2
Heater(sheath)	W	3,000	6,000	9,000
Material		All stainless steel plate		
Capacity	ℓ /hr	4	8	12
Power source		AC 220V, 50Hz or 60Hz, 1 ø		
Net weight	kg	6.5	11.7	14.0

※Cassic stills consist of a double-walled evaporator
※Removeable cover for easy cleaning
※External constant-level device to maintain proper water level

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E-mail : s67@jisico.co.kr URL http://www.jisico.co.kr

Labcare-900

Filtration Fume Cupboard

FEATURE

- Ductless Filtering Fume Cupboard System
- Toxic Gas & Odor Eliminated by Zeolite Chemical Filter System
- Purified Room Air by Filtration System

SPECIFICATION

- Dimension : 900(W) × 750(D) × 2,000(W)mm
- Filter type : Zeolite Chemical Filter
- Retention Capacity : More than 3,000g
- Air Flow : 300 CMH
- Air Velocity : More than 0.53 m/s
- Lighting : 36W × 2ea
- Sound Level : Less than 49dBA
- Power Consumption : 100W (Except Lamp)
- Voltage : 230V-60Hz / 115V-50Hz
- Safety Device : Timer, Filter Check, Velocity Monitor, Fan Failure,Worksurface & Spill Tray

Labcare-EDU

Educational Filtration Fume Cupboard

FEATURE

- Ductless Filtering Fume Cupboard System
- Toxic Gas & Odor Eliminated by Zeolite Chemical Filter System
- Back Panel for the Education
- Purified Room Air by Filtration System

SPECIFICATION

- Dimension : 800(W) × 650(D) × 1,900(W)mm
- Filter type : Zeolite Chemical Filter
- Retention Capacity : More than 2,000g
- Air Flow : 150 CMH
- Air Velocity : More than 0.53 m/s
- Lighting : 55W
- Sound Level : Less than 49dBA
- Power Consumption : 50W (Except Lamp)
- Voltage : 230V-60Hz / 115V-50Hz
- Safety Device : Timer, Filter Check, Velocity Monitor, Fan Failure,Worksurface & Spill Tray

LABZONE CO., LTD

Labstore-Single

Filtration Reagent Storage Cabinet

FEATURE

- Ductless Filtering Reagent Storage System
- Toxic Gas & Odor Eliminated by Zeolite Chemical Filter System
- Purified Room Air by Filtration System

SPECIFICATION

- Dimension : 800(W) × 500(D) × 2,100(W)mm
- Storage Capacity : More than 100 bottle (1Liter)
- Filter type : Zeolite Chemical Filter
- Retention Capacity : More than 2,000g
- Air Flow : 90 CMH
- Air Velocity : More than 0.51 m/s
- Shelves : 5ea (Adjustable)
- Sound Level : Less than 49dBA
- Power Consumption : 50W
- Voltage : 230V-60Hz / 115V-50Hz
- Safety Device : Filter Check, Velocity Monitor, Fan Failure, Spill Tray, Lock System

Labstore-Double

Filtration Reagent Storage Cabinet

FEATURE

- Ductless Filtering Reagent Storage System
- Toxic Gas & Odor Eliminated by Zeolite Chemical Filter System
- Purified Room Air by Filtration System

SPECIFICATION

- Dimension : 1,600(W) × 500(D) × 2,100(W)mm
- Storage Capacity : More than 200 bottle (1Liter)
- Filter type : Zeolite Chemical Filter
- Retention Capacity : More than 2,000g
- Air Flow : 90 CMH
- Air Velocity : More than 0.51 m/s
- Shelves : 10ea (Adjustable)
- Sound Level : Less than 49dBA
- Power Consumption : 50W
- Voltage : 230V-60Hz / 115V-50Hz
- Safety Device : Filter Check, Velocity Monitor, Fan Failure, Spill Tray, Lock System

Address : #17-302 Daejeon Industrial Materials Complex Center, 289-1 Daehwa-Dong, Daeduk-Gu, Daejeon-City, KOREA
Phone & Fax : Phone (+82-42-670-4664) Fax (+82-42-670-4670)
E-mail : labzone@labvalley.net URL http://www.labvalley.net

OPTIZEN 3220UV — UV/Vis Spectrophotometer (Double Beam Optics)

FEATURE

- Embedded Computing System : Including Microsoft Windows. XP, Microsoft Office
- Wavelength Range : 190nm to 1100nm
- Spectral Bandwidth : < 1nm
- Photometric Range : -3.0 - 3.0 ABS
- Photometric System : Double Beam Optics
- Light Source : Tungsten-Halogen Lamp & Deuterium Lamp
- User Interface : Embedded XP based Program, Keyboard, Mouse & LCD Monitor available Analysis Library included
- Power System : 110V/220V

OPTIZEN 2120UV — UV/Vis Spectrophotometer (Single Beam Optics)

※ Optizen 2120UV plus : Split Beam Optics

FEATURE

- Wavelength Range : 190nm to 1100nm
- Spectral Bandwidth : < 1nm
- Wavelength Accuracy : < ±0.2nm
- Wavelength Repeatability : < ±0.05nm
- Stray Light : 0.05 %T at 220 & 340 nm
- Photometric Range : -0.3 to 3.0A, 0% to 125%
- Photometric Accuracy : < 1% of signal
- Noise : 0.002A at 0A / 220nm & 340nm
- Drift : 0.002A/hr at 340nm
- Stability : ±0.002 A/hr
- Light Source : Tungsten-Halogen Lamp and Deuterium Lamp
- Display Mode : LCD display
- Sample Holder : Automatic 8-position multi-cell holder
- Interface Ports : RS-232C and Centronics ports
- Power Requirement : 220V, 60/50Hz
- Dimensions : 510(W)mm × 435(D)mm × 235(H)mm

OPTIZEN 1412V — Visible Spectrophotometer

FEATURE

- Spectral Bandwidth : < 4nm
- Wavelength Range : 340 ~ 1100 nm
- Accuracy : < 1nm
- Repeatability : < 0.5nm
- Monochromator : Czerny-turner type
- Stray Light : <0.1 %T at 340nm
- Photometric Range : -0.1 to 3.0A, 0 to 125%
- Accuracy : ±0.003A from 0 to 0.3A, (1% of reading from 0.3 to 2A, 2% of reading from 2 to 3A)
- Stability : 0.002 A/h
- Light Source : Halogen Lamp
- Display Mode : LCD display
- Sample Holder : Standard rectangular cell holder
- Interface Port : RS-232C and Centronics port
- Standard Capability : Absorbance/%transmittance/Concentration
- Power Requirement : AC 100~230V, 50/60Hz, 1A
- Dimensions : 300(W)mm X 250(D)mm X 125(H)mm

Better solutions in Spectroscopic analysis
MECASYS CO., LTD.

OPTIZEN 1412H — Clinical Chemistry Analyzer

■Optizen 1412H is a visible spectrophotometer that measures absorbance from 340nm to 1100nm by a holographic grating type monochromator with sipper system.
Our noise reduction circuit has led stable signal process and free voltage system for more precise measurements.

FEATURE

- 760 filters
- Direct display of absorbance and concentration
- Diversity in applicable program
- Built-in printer to record results
- Storage capacity : 100 tests programmable
- Cost-reduction for maintenance
- Large Graphic LCD display window
- Easy touch of button

OPTIZEN MINI — Portable Spectrophotometer

FEATURE

- Wavelength Range : User Select able 4 Wavelength (350nm-1100nm, Step10nm)
- Photometric Range : 0.000~3.000 ABS
- Data Display : 128 × 64 dot Matrix Graphic LCD
- Readout Modes : %T, ABS, CONC, KINETIC
- External Communication : RS-232C Serial
- Power : 1.5 × 4 AA Alkaline or NI-MH Cell, DC 6V 1A Adapter
- Memory Size : 4k Measurement Data Memory (Maximum 2000 Times Measure)
- Cell Holder : 25mm, 16mm Tube (Optional Square Cell Holder)

OPTIZEN MINI-SP — Agro-chemical Detector(Portable)

■Our OPTIZEN MINI-SP is an agrochemical detector that rapidly tests pesticide residue.
Our diagnostic strip will enzyme-react to test pesticide residue.
Optizen MINI-SP is designed as small portable size to test in field.

Rapid pesticide residue test

1. Sampling
2. Enzyme reaction
   Prepare test tubes (samplings +1) and inject 1ml of phosphate buffering liquid.
   How to make Phosphate buffering liquid.
   Sodium phosphate(30g)+ Potassium phosphate(3.18g)+Distilled water(1000ml)
3. Measure

FEATURE

* Specification can be upgraded without external announcement.
- Photometric System : Monochromator (by Optical LED)
- Photometric Sensor : Photodiode
- Display : 128x64 Dot Matrix Graphic LCD
- Printer : Connection with RS 232 port
- Power : 1.5V Alkaline Alcava Battery 4, DC 6V 1A
- Reproductibility of Inhibition : ± 3%
- Data save : About 100
- Data Transfer : PC Download Available Through RS 232C Serial Connection
- Software : Standard Service
- Time Selection : Sampling and Enzyme Reaction Time
- Dimension : 110(W) x 48(H) x 245(D)
- Weight : 500g

■ Address : 305-340 397-28, Doryong-Dong, Yuseong-Gu, Daejeon, Korea
■ Phone & Fax : Phone (+82-42-485-0118) Fax (+82-42-485-7118)
■ E-mail : overseas@mecasys.co.kr URL http://www.mecasys.co.kr

ECO-Ro1600

Water Purification System

FEATURE

1. This system has no noise.
2. This system has a very reasonable and economic price.
3. It is very easy to set and move the Water Purification System
4. This system are registered to ISO9001, and certificated on NEP Mark.

SPECIFICATION

1. Product Rate (UP to) : 20L/Hr
2. Conductivity : 1-25us/cm
3. Function : Automatic Timer for RO Membrane Cleaning
4. Power : 220V, 50/60Hz, 70W
5. Display : Digital LED

ECO-Up9000

Ultra Pure Water System

FEATURE

1. It is very easy and convenient to exchange. (Eco-UP Pack)
2. It is economic model
3. It is very easy to set and move the Water Purification System.
4. This system are registered to ISO9001, and certificated on NEP Mark.

SPECIFICATION

1. Product Rate (UP to) : 1.5L/Min(90L/Hr)
2. Resistivity : 18.2㏁-cm (at25℃)
   - TOC : < 10ppb
   - Particles(0.2us) : <1㎖
   - Bacteria : <1cfu/㎖
3. Function : Recirculation to inhibit Bacteria
4. Power : 220V, 50/60Hz, 70W
5. Display : Digital LED

MIRAE ST CO., LTD.

Esse-RoBasic 10

Water Purification System

FEATURE

Puris, RO Water System is a instrument to make basic pure water in laboratory and you can use this pure water in general chemical test, final washing and rinsing for glassware, making the general test reagent, making the media and feed water in Ultra water purification system.
(This systems are produced under ISO9001 CE certified quality management system and NEP mark for the best product quality and security)

SPECIFICATION

1. Flow Rate (UP to) : 10L/Hr
2. Conductivity : 1-25us/cm
   - Heavy Metals : < 100ppb
3. Cartridge exchange reminder
4. Time program for RO Membrane cleaning
5. Automatic drain for less value than setting value
6. Power : 120/230V, 50/60Hz, 65VA
7. Display : Microprocessor Control LCD

Esse-up Analysis

Ultra Pure Water System

FEATURE

1. Verified Ultrapure Quality of Water
2. A Great Variety of Components
3. Easy and Handy Function
4. Sensational Design
5. This systems are produced under ISO9001/CE certified quality management system and NEP mark for the best product quality and security

SPECIFICATION

1. Flow Rate (UP to) : 1.5L/min
2. Resistivity (at25℃) : 18.2㏁-cm
   - Inorganics : <0.05ppb
   - TOC : 1-5ppb
   - Particles (0.2㎛) : <1/㎖
   - Bacteria : <1cfu/㎖
3. Dispenser timer for product quantities
4. UV Lamp exchange reminder
5. Pack exchange reminder
6. Power : 110/230V, 50/60Hz, 65VA
7. Interface : RS-232C/RS45 for data output
8. Display : Microprocessor Control LCD

■ Address : #717 Anyang Megavalley, 799, Kwanyang-dong, Dongan-gu, Anyang-si, Kyeonggi-do
■ Phone & Fax : Phone (+82-31-420-5753) Fax (+82-31-420-5978)
■ E-mail : miraest@miraest.co.kr URL http : www.miraest.co.kr

SWN-2003

Depository of Reagent

Perfect isolation and Separation by kinds in indeperdnt storage space

Main Specification

Model	SWN2003
Dimension	1255×765×2390mm(6Room)
Blower Moter	Sirocco Type / ϕ200mm
Door	Glass(4Room)/Dark Room(2Room)
Material	Interior : ABS injection molding Exterior : Steel Plate with Powder Coating(E.G.I)
Filter	Carbon Filter
Time	Multi
Controller	L.C.D Display(Digital)
Lamp	L.E.D(High Iuminance Lamp×2ea)
Handle	Moving Lock handle
Main Switch	Key Switch
Caster	Packing Caster(4ea)
Shelves	14ea
Power Consumption	265W
Power	AC 220V/60Hz

SCBN-1011~1013

Clean Bench

Main Specification

Model		SCBN-1012/1300	SCBN-1012/1600	SCBN-1012/1900
Dimensions		Vertical Type		
Working Area		1300×900×1900	1600×900×1900	1900×900×1900
Dust Collection		1220×570×620	1520×570×620	1820×570×620
Pre-Filter		HEPA Filter/0.3㎛ Particie 99.99%		
Purity		Class 100		
Winding Velocity		0.3-0.45m/sec		
Door		Sliding Door		
Bolwer Motor		1/4HP~1/2HP		
Ilumination		F.L Lamp : 40W×2ea		
U.V.G Lamp		40W×2ea		
Temp	Interior	Stainless Steel Plate(Hait Ling)		
	Exterior	Steel Plate with Powder Coating		
Power		AC 220V/60Hz		

SFHN-2011~2013

Fume Hood

More Safer more Comfortable and Cleaner testing

Main Specification

Model	SFHN 2011	SFHN 2012	SFHN 2013
Dimension	1200×750×2350mm	1500×750×2350mm	1800×750×2350mm
Blower/Moter	Installed		
Duct		ϕ200mm	
Door	Safety Glass		
Working Plate	Ceramic		
Material	Interior : Stainless Steel Exterior : Steel Plate with Powder Coating		
Power Consumption	280W	280W	
Power	AC 220V/60Hz		

SFCN301~302

Oven

Main Specification

Model		SFCN 301	SFCN 302
Temp.	Rance	Amb+5℃ to 250℃	
	Accuracy	±0.5℃ ati 150℃	
	Controller	Digital/Digital P.I.D. Controller	
Dimension(in)		450(W)×450(D)×450(H)mm	600(W)×500(D)×500(H)mm
Material	Interior	Stainless Steel (STS-304)	
	Exterior	Steel Plate with Powder Coating(SCP-1)	
Heater		1100W	1300W
Satety Device		Exclusive Over Temp. Protector, Power Breaker	
Shelves		2EA	3EA
Power		AC 220V/60Hz	

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E-mail : shinsaeng@shinsaeng.com URL http://www.shinsaeng.com

SK-G1200

VACUUM GLOVE BOX

FEATURE

- This model provides Oxygen-free, No-humidity, Germfree & Constant Temps/Humidity conditions with its unique Box, closed type.
  It can be applied to both vacuum & de-airation purpose of the experimentation.
  1. Equipped with transparent specially coated PMMA window, front side.
  2. Regeneration control system with automatic control exerts the maximization of De-humidity & De-acidification of the chamber of the equipment by providing constant air flow inside.
  3. Special Gloves adopted will increase the effectiveness of the operation by researchers.

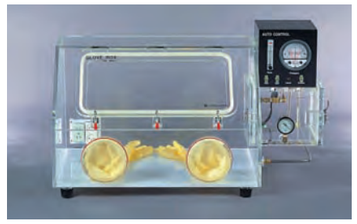
SPECIFICATION

- Dimension :1200W × 760D × 850H mm (Main Chamber), 1500W × 760D × 900H mm (Table)
- Remarks : Ante Chamber ø360 × 600L (SUS-304), Dry Trap : ø110 × 400L (38ℓ)

※Other size & specification are available upon request.

SK-G001

ANAEROBIC GLOVE BOX



FEATURE

- This model provides Oxygen-free, No-humidity, Germfree & Constant Temp/Humidity conditions with its unique Box, closed type.
  It can be applied to both vacuum & de-airation purpose of the experimentation.
  1.Equipped with transparent specially coated PMMA chamber & Gloves.
  2.Main chamber exchangeable with gas. Pass Box provides vacuum.

※ Dry trap, automatic controller & work table are optional.

※Other size & specification are available upon request.

SK-G1200

VACUUM GLOVE BOX

FEATURE

- Features the vacuum operation of Main chamber as well as Pass Box up to 1 torr.

SPECIFICATION

- Dimension : 800W × 5000D × 500H mm (Main Chamber)
  260W × 240D × 240H mm (Pass Box) : SK-G001,2
- Option : Dry trap, automatic controller & work table are optional. (G001,2)

※Other size & specification are available upon request.

SK-V001

VACUUM DESICATOR

FEATURE

- This model is applicable for both vacuum experimentation & de-airation purpose.
  1. No need for greasing at door position due to Silicone Packing for the perfect closing.
  2. De-pressurization is available up to 1torr. (-760mmHg) Therefore, it can be used for the sample storage under vacuum, exchange of gas etc.
  3. This equipment is so made of special grade PMMA, much resistance to abrasiveness, transparency that it exerts long duration time.

SPECIFICATION

- Dimension : 400W × 300D × 400H mm (ID)
- Remarks : Shelf - 2ea, Valve - 2ea, Gauge - 2ea, Tray - 1ea

※Other size & specification are available upon request.

(주) 쓰리샤인 THREE-SHINE INC. THREE SHINE INC.

M VCS 140 RAC K

Micro (Mouse) Ventilation Cage System

FEATURE

- Equipping many animals within small floor area by providing S.P.F. circumstances over all of the cages in the Rack. Individually Ventilated Caging System (IVC)
- Dual filter system of Cage Top eliminates the noise, no catch on the Cage Top leads easy handling & maintenance.
- Even to power off, no problem of suffocation death as it maintains CO_2 concentration under 1,000 ppm.
- No cross contamination among the cages on the rack, also no pressure differentiation among the cages.
- No detaching of the cages on the rack in case of transportation & earth quake.
- Size : 1803W × 765D × 1991H mm (+330H for Controller on top)
  Cage : Polysulfone (P.S.F), Polycarbonate (P.C) for MOUSE

※Other size & specification are available upon request.

RVCS 60 RAC K

MICRO(Rat) Ventilation Cage System

FEATURE

- Equipping many animals within small floor area by providing S.P.F. circumstances over all of the cage in the Rack. Individually Ventilated Caging System (IVC)
- Dual filter system of Cage Top eliminates the noise, no catch on the Cage Top leads easy handling & maintenance.
- Even to power off, no problem of suffocation death as it maintains CO_2 concentration under 1,000 ppm.
- No cross contamination among the cages on the rack, also no pressure differentiation among the cages.
- No detaching of the cages on the rack in case of transportation & earth quake.
- Size : 1742W × 891D × 1683H mm (+330H for Controller on top)
  - Cage : Polysulfone (P.S.F), Polycarbonate (P.C) for RAT

※Other size & specification are available upon request.

M VCS 24 ECM

Environment Control Type ICM RACK

FEATURE

- Cabinet type IVC rack equipping with Temp/Humid. Controller.
- Even in the conventional area, it provides S.P.F. circumstances over all of the cage in the Cabinet. Individually Ventilated Caging System (IVC)
- No cross contamination among the cages on the rack, also no pressure differentiation among the cages.
- Size : 1198W × 600D × 1750H mm / Controller : 600W × 600D × 1750H mm
  - Cage : Polysulfone (P.S.F), Polycarbonate (P.C) for RAT / MOUSE

※Other size & specification are available upon request.

SK-WS1200

Cage Changing Station (WORK STATION)

FEATURE

- Features the very stable laminar flow of air circulation.
- Lifting type, down/upward, of the height of working table will suit the physical condition of operating people. ERGONOMICS!
- Recycling of approximately 85% of air used will protect the environment considerably.
- Dual check anti noising system will improves the circumstances better.
- Size : 1200W × 800D × 1800H mm, (SUS-304)
  - Window : PMMA 8T Plate

※Other size & specification are available upon request.

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E-mail : threeshine@threeshine.com URL http://www.threeshine.com

U W C

Universal Washing Chamber

- This machine is capable of washing, rinsing, sterilizing through the lamp-style sterilizer, and drying glass equipment used in experiments, substance analysis and examinations through and automated digital program control.

This allows for savings in time and work time for the operator, as well as improving the level of data acquired in experiments.

It is an easy to use cleaner using warm sterilized air during the drying

SPECIFICATION

- Controller : PV Display : 5 Digit 7-Segment red LED, Height 20mm
  LCD Display : 32 x 128 DOT LCD Indicator
  Status Indicator Lamp : Yellow and Green LEDS
  Control Method & Input : Micro processor and touchpad
  Power unit Lithium battery : For data storage, for approx. 10 years
- Dimension(W × D × H) : (in size) 600 × 600 × 700㎜
  (out size) 930 × 760 × 1850㎜
  (rotation rack size) Φ550 ㎜
- Material : External : Stainless H/L Plate
  Internal : Stainless P/L Plate
- Door : Automatic System , Safety Glass
- Washing Pump : Goulds Pump NPE-LC Series.
  Impellor Material : SUS #304
  Capacity : 60 ~ 160㎏/min , H Max. : 40M , RPM : 3500rpm
  Pressure : 2.2 ~ 3.3kg/㎠
  Temperature : 100℃ below
- Drying System : Heater : Infrared ceramic Heater 1.5KW
  Drying Fan Motor : Sirocco Type , Forced Convection
  Drying Air Filter : Nylon
  Air Drying : External
  Drying Temperature : 90℃
- Water Heater : SUS #316 Pipe Heater 5KW
  Boiler for hot water supply
- Power Consumption : 8.6KW (Max. : 6kw , Min. : 2.6kw)
- Water Supply : Hot and Cold Water (Pressure 0.5 ~ 2.5kg/㎠)
- Washing Method : Power Jet Spray
- Chamber : Up : Jet Rack
  Down : Rotation Rack
- Drain Pump : Automatic Control and Manual Control
- Detergent Pump : Mechanical Magnetic Pump 30cc/Per cycle
- Water Consumption : 24 ~ 190ℓ / Pre Cycle
- Program Pattern : Pre Wash → Wash → Rinse → Dry → End (7-Pattern)
- Sterilization : U.V Ray 15W 2EA
- Interface : RS - 485
- Power Supply : 3 Phase 220V 60Hz

FEATURE

- The pattern for cleaning can be changed according to the residue on the instruments
- With the built in water filter the rinsing water is free from outside contamination
- In order to increase the level of cleaning, a separate hot water pipe is installed, in the event that hot water is not available, the built in heater cat be used to enhance.
- With the built in lighting system you can inspect the nozzle, there by preventing stoppage.
- An automatic liquid soap Supplier is built in, and there is a separate switch to regulate the flow of liquid soap depending on the type of glass used and the degree of contamination
- A variety of baskets can be interchanged to accommodate the different sized instruments.
- The indicator shows the current cycle in the cleaning process
- The cleaner is equipped with an automatic door opener.
- With a built in water tank and pump the level of water provided is maintained at a constant level.

Laboratory Equipments

US - VM

Vortex Mixer

- Vortex Mixer is the product, which is designed to test the results such as through using tubes, tiny flask, etc. Mixing Plate has 5 holes in order to mix multiple test tubes simultaneously, it is designed to pursue convenience and speed of laboratory work.

FEATURE

- A variety of tube can be used without changing mixing plate, and the plate of Vortex Mixer is too soft, flexible, and resistible to be damaged easily.
- Through choice of switch button between full or touch, a researcher is able to proceed his experiment in terms of 3 options of operation of the product.
- Vortex Mixer is equipped with a speed controller, so a researcher can control the speed of his test work by virtue of sample in order to get more powerful results of experiment in lab.
- Vortex Mixer has suction cup, with a view to trivializing vibration while the product being operated.

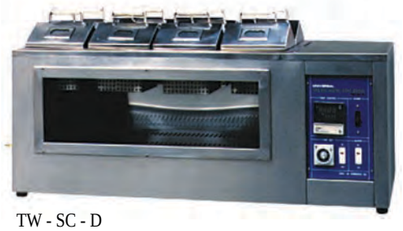
SPECIFICATION

- Speed Range : 1000 ~ 3500 rpm
- Mixing Plate : Φ 90mm
- Mixing Method : Vibration Type
- Plate Strock : 4mm
- Power Consumption : 0.5A
- Power Source : 220V/60Hz
- Use Container : Test Tube and Flask

TW - SC - D/DS

Steam Aging Test Bath

TW - SC - DS



TW - SC - D

- Testing aging or quality status of any apparatus, this more advanced test bath employs digital mode in setting and indicating
  Temperature to develop operation, temperature reproducibility, and safety more than ever.

FEATURE

- The temperature control uses a digital format, reducing the level of error and enhancing the ease of operation and maintenance of required temperature
- The water supply and level is adjusted automatically, allowing for longer and safer use of the steam aging machine
- With the Auto Start, Auto Stop Timer it can be operated by simply inputting the temperature and item setting.
- The entire product is made of stainless steel.
- There is a viewing window in the front of the machine.
- This product is a steam aging tester appropriate for the Older Bility Test (Mil-Std-883C) of semi-conductors.

SPECIFICATION

- Temp. Range : Amb. +5℃ ~ 95℃
- Temp. Control : Digital Set Readout PID Control
- Temp. Stability : ±0.3℃ at 90℃
- Dimension(W × D × H) : (in size) 685 × 285 × 240㎜
  (out size) 965 × 345 × 475㎜
- Material : All SUS #304
- Timer & Buzzer : auto start, auto stop, 99.9/hr, digital display
- Heater : 1KW × 4
- Safety Device : Power Breaker Switch
- Power Source : AC 100 or 220V/60Hz

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E-mail : shw@woojusc.co.kr URL http://www.woojusc.co.kr

G-1001 F/R automotive power train educational system

FEATURE

(4×4, gasoline vehicle, rear drive, motor-operated)

- This model clearly shows power train system of a passenger car such as engine, clutch, transmission, propeller shaft, differential gear, rear axle shaft, brake, tire.
- The whole system has been cross-sectioned, painted by different colors and powder coating, and operated by AC motor.
- Complicated internal structures and operating principle can be easily seen by cross-sectioning and each system can be illustrated by operating it.
- A5 speed manual transmission is cross-sectioned, so internal structure and operating principle can be easily explained.
- Engine specifications: gasoline/ 2,000cc/ FR type/ 4 stroke/ 4 cylinders/ water-cooled/ in-line I head type/ SOHC/ electronic-controlled engine
- Internal structure and operating principle of 4-stroke, 4-cylinder engine such as crankshaft, piston, valve, etc are clearly seen by cross-sectioning cylinder and head. Intake and exhaust systems, cooling system, fuel system, lubricating system, electrical system, air-conditioning system are cross-sectioned, and operated for better educational quality. Clutch, transmission, propeller shaft, differential gear, brake, etc are cross-sectioned, and can be trained during
  operation of clutch, shift lever, and brake pedal.Bulbs on and off for ignition/ single phase 220V of motor power/ 12~15 rpm/ a halogen lamp/ control box
- A robust frame, made of steel and painted, can be easily moved and stopped by 6 wheels.
- Product size≒L:310×W:155×H:135cm, Wt≒450kg

G-3004-E Engine &A/T simulation educational system

FEATURE

(2,000cc class gasoline engine+A/T+hydraulics+Pin)(EF Sonata, Optima)

- Engine specifications: gasoline/ 2,000cc class/ 4 cylinders / in-line I head type/ DOHC/ electronic-controlled engine
- It is effective to educate operating principle, fault diagnosis, and testing of gasoline engine and automatic transmission during actual operation. By installing instruments, check terminals, and toggle switches on the front panel, fault diagnosis, test, and practical training can be easily done. Pressure gages are installed at P, R, N, D and L hydraulic circuits of automatic transmission to instruct operation of hydraulic circuits according to each range. Installation of check terminals provides convenience for diagnostic instrumentations. Instruments, vacuum gage, fuel pressure gage, voltmeter, connectors for diagnosis, and power source jack are provided for educational information.
- A robust frame, made of steel and painted, can be easily moved and stopped by 4 wheels.
- Product size≒L:180×W:120×H:120cm, Wt≒400kg

G-D3004-S CRDI Diesel engine & A/T simulation educational system

FEATURE

(Common Rail Direct Injection engine+A/T+hydraulics+Pin)

- It is high standard educational system to simulate actual operation of CRDI Diesel engine and automatic transmission.
- Engine specifications: CRDI Diesel/ 2,000cc~2,500cc
- It is effective to educate operating principle, fault diagnosis, and testing of gasoline engine and automatic transmission during actual operation. By installing instruments, check terminals, and toggle switches on the front panel, fault diagnosis, test, and practical training can be easily done. Pressure gages are installed at P, R, N, D and L hydraulic circuits of automatic transmission to instruct operation of hydraulic circuits according to each range. Installation of check terminals provides convenience for diagnostic instrumentations. The front panel is made of aluminum plate to be beautiful and durable by CNC engraver. Instruments, vacuum gage, fuel pressure gage, voltmeter, connectors for diagnosis, and power source jack are provided for educational information. Accelerator cable can be finely adjustable. Powder coating, vibration resistant structure
- A robust frame, made of steel and painted, can be easily moved and stopped by 4 wheels.
- Product size≒L:180×W:120×H:120㎝, Wt≒500kg

G-3 DAE SUNG G-3 CO., LTD.

G-30552 Air conditioner simulation educational system

FEATURE

(Cooling and heating, MTC, inverter, circuit diagram)

- It is simulation-type educational system for understanding operating principle of manual air conditioning system equipped at passenger car.
- Air conditioning system is manual temperature control type.
- Heating system is specially designed by G3, which includes hot water, automatic heater, and circulation system. The sensors and actuators can be operated under actual operating conditions of vehicle to make practical training of circulation process of refrigerant, temperature, and pressure easy. All components of air conditioning system such as compressor, condenser, dryer, expansion valve, orifice, evaporator, blower, duct, cooling fan, control panel are installed.
- Refrigerant: HFC(Hydro Fluro Carbon)-134a
- Compressor: operated by 5 HP motor, speed control by inverter
- 5 KW heater with automatic circulation system of hot water
- Self-generating and charging system. High and low pressure gages, 2 side glasses, and 3 digital thermometer are installed.
- Power of 220/380V and 9KW, AC/DC circuits, control box
- Colorful circuit diagram of air conditioning system is provided.
- A robust stand, made of steel and powder-coated, can be easily moved and stopped by 4 wheels.
- Product size≒L:190×W:130×H:165cm, Wt≒300kg

G-3051P ABS simulation educational system

FEATURE

(1 Inverter, check pin, luxury model)

- It is simulation-type educational system of 4 sensors and 4 channels ABS equipped at passenger car of 2,000cc class or higher.
- It can simulate the actual operating states of ABS during running and braking.
- Its components are the same as actual ABS such as ECU, hydraulic unit, speed sensors, 4 wheels, master vacuum system, etc.
- The driving system of ABS is installed inside to be safe, and rpms of 4 wheels are controlled by an inverter. The ABS is operated to control tire force by hydraulic control based on wheel speed difference. The special equipment considering inertia and skid during driving and braking is installed for higher quality education.
- By installing instruments, check terminals, and toggle switches on the front panel, fault diagnosis, test, and practical training can be easily done. The installation of diagnostic connectors makes measurements of signal of each sensor easy, based on which diagnosis, testing, and experiment can be easily done.
- The hydraulic and electric circuits of ABS are color-printed, and installed at panel. Pressure gages and digital rpm meter of 4 wheels, pressure gages of master vacuum system and master cylinder, ABS indicating lights are installed.
- Power source of 220V/ 5HP control motor of 380V/ inverter of 0～450 rpm/ self-generating, charging, vacuum system
- A robust stand, made of steel and powder-coated, can be easily moved and stopped by 4 wheels.
- Product size≒L;160×W:122×H:165cm, Wt≒600kg

G-3075 ECS simulation educational system

FEATURE

- It is simulation-type educational system for understanding internal structure and operating principle of ECS such as position control, damping control, height control, self-diagnosis, etc.
- All the components of ECS such as air cylinder, control lever, instrument panel, actuator, voltmeter, ammeter, buttons, ECS mode switch, self-diagnostic connector, check terminals, steering wheel, steering angle sensor, brake switch, idle switch, and accelerator are installed and can be operated. Loads, front load of 80Kg and rear load of 70Kg, are applied to simulate vehicle height, which can be measured.
- The height of each wheel can be controlled by air cylinders.
- Damping force can be controlled by each mode. Anti- squat, roll, and dive control can be achieved. By changing sensor outputs and ECU outputs artificially, the response of ECS can be monitored with self-diagnostic instrument or oscilloscope to understand the operating principle of their control system.
- Color-printed ECS circuit diagram, pneumatic circuit, 4 pressure gages for shock absorbers, and pressure gage for high pressure tank are installed.
- Power source are AC 220V and DC 12V, and pneumatic source is commercial pneumatic type.
- A robust frame, made of steel and powder-coated, can be easily moved and stopped by 6 wheels.
- Product size≒L:290×W:150×H:180cm, Wt≒800kg

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E-mail : dsg-3@dsg-3.co.kr URL http://www.g-3.co.kr

G-1018

V6 engine exhibition system

FEATURE

(Engine, motor-operated, circular stand, rotating stand)

- This model clearly shows gasoline V6 engine such as piston, crank shaft, cylinder head, cam , valve, cooling, and lubricating system.
- The whole system has been cross-sectioned, painted by different colors and powder coating, and operated by AC motor.
- In addition to the rotation of engine, the exhibition stand is also rotated by a motor. It is perfect for exhibition.
- Engine specifications: gasoline/ 3,000cc/ V6 cylinders/ electronic controlled engine
- Single phase 220V of motor power/ engine:12~15 rpm/ stand:7~10 rpm/ on and off of LED by stroke/ a halogen lamp/ control box
- The model is painted by our company's detailed specifications for painting to enhance educational quality.
- Exterior is painted by diamond, and parts are coated for durability.
- The model is designed and manufactured according to ISO 9001 and our company's technical spec.
- A robust frame, made of steel and painted, can be easily moved and stopped by 4 wheels.
- Product size≒φ:100×H:160cm, Wt≒350kg

G-1014

SOHC engine educational system

FEATURE

(4×4 electronic controlled engine, motor-operated)

- This model clearly shows structure and operating principle of SOHC(single overhead camshaft) engine installed at the stand.
- The whole system has been cross-sectioned, painted by different colors and powder coating, and operated by AC motor.
- Engine specifications: gasoline/ 1,800cc/ 4 cylinders/ SOHC/ electronic-controlled engine
- Internal structure of SOHC engine such as 4 cylinders, crankshaft, cylinder head, camshaft, valve, electrical system, colling system and lubricating system are clearly seen by cross-sectioning engine. It is effective to educate the operating principle of SOHC engine.
- Intake and exhaust systems, cooling system, fuel system, lubricating system, electrical system are cross-sectioned, and operated for better educational quality.
- Bulb on and off for ignition/ single phase 220V of motor power/ 12~15 rpm/ a halogen lamp/ control box
- The model is painted by our company's detailed specifications for painting to enhance educational quality. Cut face: dark red, intake system: sky blue, exhaust system: pink, lubricating system: yellow, cylinder block: light black, cylinder head: silver, gasket: white.
- Exterior is painted by diamond, and parts are coated for durability.
- The model is designed and manufactured according to ISO 9001 and our company's technical spec.
- A robust frame, made of steel and painted, can be easily moved and stopped by 4 wheels.
- Product size≒L:94×W:65×H:120cm, Wt≒200kg

G-1017

4×4 Diesel engine educational system

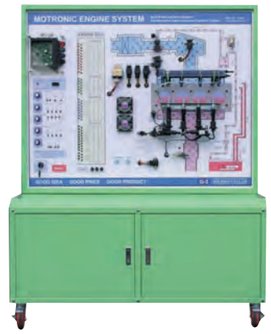
FEATURE

- This model clearly shows internal structure and operating principle of Diesel engine installed at the stand.
- The whole system has been cross-sectioned, painted by different colors and powder coating, and operated by AC motor.
- Engine specifications: Diesel/ 2,500cc/ 4 stroke/ 4 cylinders/ rotary injection pump/ in-line I head type
- Internal structure of engine such as 4 cylinders, crankshaft, cylinder head, camshaft, valve, electrical system, cooling system and lubricating system are clearly seen by cross-sectioning engine. It is effective to educate the operating principle of engine.
- Intake and exhaust systems, injection pump, cooling system, fuel system, lubricating system, electrical system are cross-sectioned, and operated for better educational quality.
- Single phase 220V of motor power/ 12~15 rpm/ a halogen lamp/ control box
- The model is painted by our company's detailed specifications for painting to enhance educational quality. Cut face: dark red, intake system: sky blue, exhaust system: pink, lubricating system: yellow, cylinder block: light black, cylinder head: silver, gasket: white.
- Exterior is painted by diamond, and parts are coated for durability.
- A robust frame, made of steel and painted, can be easily moved and stopped by 4 wheels.
- Product size≒L:94×W:65×H:150cm, Wt≒150kg

G-3 DAE SUNG G-3 CO., LTD.

G-30297

MOTRONIC educational system



FEATURE

(DLI, integrated control system)

- It is educational system for engine control system and includes actual DLI Motronic components and additional equipment for education. DLI Motronic system is commercial electronic engine control system, which involves distributorless ignition system, fuel injection, etc.
- DLI Motronic circuit diagram is color-printed, coated, and installed at aluminum panel. Wirings are installed at back side of panel.
- Terminals for checking signals are installed at various points, so measurement of signals is easy.
- Input and output signals from sensors and actuators may be measured with diagnostic connectors. Input and output signals of ECU can be easily measured by additional jacks connected with signal lines of ECU.
- Voltages from TPS, ATS, WTS, AFS, and oxygen sensor can be changed by intentionally, so their effects on fuel injection and ignition timing can be monitored.
- Control box and power supply system are designed and manufactured by our company's technical spec., and installed at inside of panel.
- The model is designed and manufactured according to ISO 9001 and our company's technical spec.
- A robust frame, made of steel and painted, can be easily moved and stopped by 4 wheels.
- Product size≒L:122×W:50×H:160㎝, Wt≒100kg

G-30142-C

Integrated electric & electronic components educational system

FEATURE

(Circuit diagram, EF Sonata, distributorless ignition system)

- It is educational system for practical training of all electric and electronic system adopted at passenger car of 2,000cc class.
- All the electric and electronic components and related-complicated electric wirings are well integrated and installed at aluminum panel stand, based on system-wise, for easy training. This model includes instrument panel, steering wheel, multi-function switch, alternator, actuators, wiper system, door, radio, speaker, fuel system, lighting system, fan motors, control switch, sensors, relays, etc.
- All the components can be operated to be adequate for educating theory and practical training of electric and electronic system of vehicle.
- Every sensor and actuator has extra output terminal for measurement of their input and output signals.
- Circuit diagram is color-printed and coated, and electrical wirings are installed at back side of panel.
- 220V 2HP motor/ automatic charging/ DC 12V battery
- The model is designed and manufactured according to ISO 9001 and our company's technical spec.
- A robust frame, made of steel and painted, can be easily moved and stopped by 4 wheels.
- Product size≒L:250×W:80×H:180㎝, Wt≒320kg

G-30291EC

ETACS educational system

FEATURE

- It is simulation-type educational system for operating principle and practical training of EF Sonata's ETACS(Electronic time and alarm control system)
- It is manufactured for educating operating principle of ETACS, its diagnosis, and practical training. It includes ETACS unit, combination switch, wiper motor, washer motor, wiper relay, door switch lamp, instrument panel, door modules, power window relay and motor, windshield heater switch, seat belt, door lock actuator, starter relay, buzzer, diagnostic connector, etc.
- ETACS circuit diagram is color-printed, coated, and installed at aluminum panel. Wirings are installed at back side of panel.
- Terminals for checking signals are installed at various points, so testing is easy.
- Control box and power supply system are designed and manufactured by our company's technical spec., and installed at inside of panel.
- The model is designed and manufactured according to ISO 9001 and our company's technical spec.
- A robust frame, made of steel and painted, can be easily moved and stopped by 4 wheels.
- Product size≒L:190×W:60×H:165cm, Wt≒200kg

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E-mail : dsg-3@dsg-3.co.kr URL http://www.g-3.co.kr

CNC MM-300S

CNC ENGRVING MACHINE MM-300S

The CNC MM-300s is designed as the open-architecture of PC-based USB type that is installed general PC.
If you are to engrave in 3D, names, logos, images on materials for use as signs and awards, the MM-300s becomes the right machine for you with the high-speed spindle installed.
In addition to faster cutting, the high-speed spindle and brushless DC motor produce increased torque with less vibration.
The MM-300S' s precision and performance will satisfy you in any business or field for such purposes as product design, trial production, small lot production, 2D/3D engraving, 3D signs, reliefs and lots more.

SPECIFICATION

Working area(X,Y,Z)	430 × 320 × 120mm
Table size	520 × 340mm
Dimensions	720 × 820 × 900mm
Spindle Motor	1KW, BLDC
Spindle speed	3,000~20,000rpm
XYZ-axis motor	Step Motor 8Kg/㎝
Repeatability	0.007mm
Resolution	0.01mm
Rapid traverse speed	100mm/sec
Frame	C5 Ball Screw, L/M Guide
Power	220V(50/60Hz)
Weight	75KG

FEATURE

- Simple connectivity by USB port
- Variety of application :Jewelry, Precision parts, Sign making, Moulds stamps etc
- Wide range of materials: aluminum, brass, copper and wood so on
- Unique functions

CNC MM-250s3

CNC Milling Machine CNC MM-250s3

FEATURE

- Cost effective in motion control application of up to 3 axes
- Simple in connectivity
- Quick system setup
- Easy to operate
- Easy to program a complex motion
- Other various functions

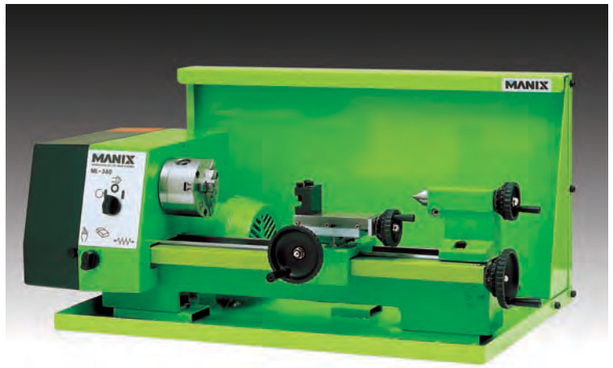
SPECIFICATION

Distance between mail spindle and column	115mm
Repeatability	0.007mm
Resolution	0.01mm
Work table size	350 × 145mm
Main spindle travel	30mm
Main spindle speed	320-3200rpm
Demensions	346 × 530 × 695mm
Weight	86kG

WOOSUNG E&I CO., LTD.

ML-360

Mini Lathe Machine ML-360



FEATURE

- Superbly rigid bed with precision ground veer ways
- Powerful 300 watt motor for forward reverse rotation
- Main spindle for precise machining
- Versatile tail stock
- Carriage of generous travel
- Convenient 0 setting

SPECIFICATION

Center height	75mm
Distance between centers	360mm
Swing over carriage	∅96mm
Spindle speed	260~2,860rpm
Demensions	756 × 377 × 245mm
Weight	30KG

MM-250s3

Mini Milling Machine MM-250s3

FEATURE

Special accessories such as X-Y table and spindle etc can effect a wide range of machining operations.
Accessories are used in common with ML-3601 lathe, MM-250s3 show its full power over very precise machining.

SPECIFICATION

Distance between mail spindle and column	115mm
Work table size	350 × 145mm
Main spindle travel	30mm
Main spindle speed	320-3200rpm
Demensions	346 × 530 × 695mm
Weight	86kG

Address : 1337-17, DowounB/D, Seocho-dong, Seocho-gu, Seoul, KOREA
Phone & Fax : Phone (+82-2-3474-8765) Fax (+82-2-3474-7008)
E-mail : overseas@manix.co.kr URL http://www.manix.co.kr

MD-1/1H

Mini Drilling Machine MD-1/1H

FEATURE

- Hardened,ground and supported both ends with precise bearings to assure accurate drilling.
- Convenient three position switch allows for continuous operation or intermittent operaton actuated by downward movement of the quill
- Aluminum die cast heat housing
- Made of tough cast-iron with a working area of 170 × 170mm and provides two grooves to mount machine vice and work via fixtures.

SPECIFICATION

	MD-1	MD-1H
Drilling capacity	∅ 1.0-6.5mm	
swing	220mm	
table size	170 × 170mm	
Main spindle travel	25mm	
Main spidle speed	850-3100rpm	8000-12000rpm
Dimensions	170 × 315 × 395mm	
Weight	5.4KG	

ABM-500

ACRYLIC BENDER ABM-500

FEATURE

- Professional acrylic bender for modelbuilders and designers.
- Ensures perfect straight bending of various acrylic materials.

SPECIFICATION

Heating capacity in length	570mm
Heat width	5-15mm
Heating type	infrared rays
Power	Single phase100/220V
Dimensions	680 × 160 × 100mm
Weight	5.0KG

ABM-700

ACRYLIC BENDER ABM-700

FEATURE

- Folds 1-6mm(0.04-0.025in) thick material.
- 2 heat setting
- Adjustable wire height.

SPECIFICATION

Heating capacity in length	700mm
Heating type	Ni-Chrome wire
Wire thicknees	0.9mm
Power	220V, 140W
Dimensions	850 × 410 × 220mm
Weight	10KG

WOOSUNG E&I CO., LTD.

HCM-S plus

Hotwire Foam Cutter HCM-S plus

FEATURE

For architecture model builders, designer, decorators and artists etc.
Ensures quick cutting of foam and various thermoplastic materials

SPECIFICATION

Work table size	360 × 240mm
Wire height	140mm
Wire diameter	∅ 0.18mm
Dimensions	460 × 290 × 250mm
Weight	2.7KG

HCM-2S

Hotwire Foam Cutter HCM-2S

FEATURE

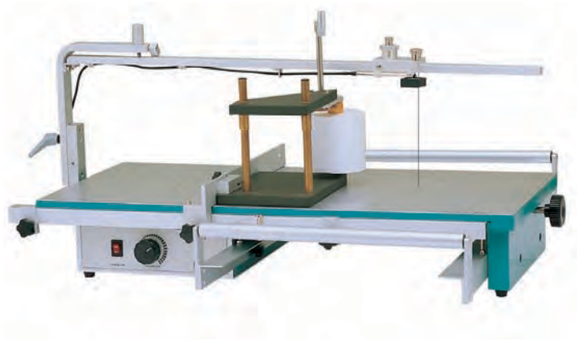
For architecture model builders, designer, decorators and artists etc.
Ensures quick cutting of foam and various thermoplastic materials

SPECIFICATION

Work table size	560 × 315mm
Wire height	210mm
Wire diameter	∅ 0.18mm
Dimensions	700 × 335 × 375mm
Weight	6.0KG

HCM-3S

Hotwire Foam Cutter HCM-3S



FEATURE

For architecture model builders, designer, decorators and artists etc.
Ensures quick cutting of foam and various thermoplastic materials Wireheating within 1 second.
Comprehensive range of work with accessories.

SPECIFICATION

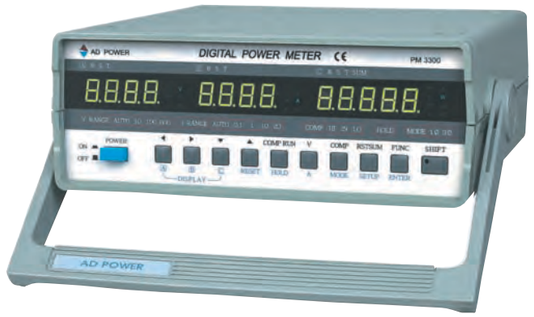
Work table size	610 × 265mm
Wire height	85-210mm
Wire diameter	∅ 0.18mm
Dimensions	700 × 530 × 364mm
Weight	8.0kG

Accessories

Hand cutter, Circular working jig, Foot switch, wrench 1set, Steel measure Protractor, Horizontal straight guide, Angle guide, Wide straight guide, Wire(3roll)

Address : 1337-17, DowounB/D, Seocho-dong, Seocho-gu, Seoul, KOREA
Phone & Fax : Phone (+82-2-3474-8765) Fax (+82-2-3474-7008)
E-mail : overseas@manix.co.kr URL http://www.manix.co.kr

PM3300/3300K Digital Power Meter(3phase & 1phase)



FEATURE

- High Speed Response of Auto Range
- Measurement Range : -1 P 2 W, 3 P 3 W, 3 A 3 V
- Phase Detect Function
- Rs 232 Interfaces Function
- Compare Function (Hi, Go, Lo)
- 4 Digits LED Display
- Frequency Bandwidth :
  10 Hz ~ 20 kHz (PM3300)
  10 Hz ~ 100 kHz (PM3300K)

MEASUREMENT FUNCTION

- Volt : 10 V ~ 600 V , Accuracy : ± 0.2 % + 3 digit
- Current : 50 mA ~ 20 A, Accuracy : ± 0.2 % + 3 digit
- Active Power : 0.5 W ~ 24 kW, Accuracy : ± 0.3 % + 3 digit
- Reactive Power : 0.5 Var ~ 24 KVar, Accuracy : ± 0.3 % + 3 digit
- Power Factor : 0.01 ~ 1 ~ 0.01, Accuracy : ± 0.2 % + 3 digit
- Frequency : 10 Hz ~ 100 kHz, Accuracy : ± 0.2 % + 3 digit

GENERAL SPECIFICATION

- Operating Temperature : 0 ℃ ~ + 50 ℃, 40 ~ 85 RH
- AC line input Voltage : 90 ~ 240 V 50 / 60 Hz
- Dimensions : 280(W) × 95(H) × 270(D) mm
- Weight : ≒ 3.2 kg

PM2200/2200K Digital Power Meter(1phase)

FEATURE

- High Speed Response of Auto Range
- Measurement Range - 1 P 2 W, AC / DC
- RS232 Interfaces Function
- Compare Function (Hi, Go, Lo)
- CT Ratio : 1 ~ 1,000
- 4 Digits green LED Display
- Bandwidth :
  DC and, 10 Hz ~ 100 kHz (PM-2200K)
  DC and, 10 Hz ~ 20 kHz (PM-2200)

MEASUREMENT FUNCTION

- Voltage : 10 V ~ 600 V, Accuracy: ± 0.1 % + 3 digit
- Current : 50 mA ~ 20 A, Accuracy: ± 0.1 % + 3 digit
- Active Power : AC/DC 500 mW~12 kW, Accuracy: ± 0.2 % + 3 digit
- Reactive Power : 500 mVar~12 kVar, Accuracy: ± 0.2 % + 3 digit
- Power Factor : 0.01 ~ 1 ~ 0.01, Accuracy: ± 0.2 % + 3 digit
- Frequency : 10 ~ 100 kHz, Accuracy: ± 0.1 % + 3 digit

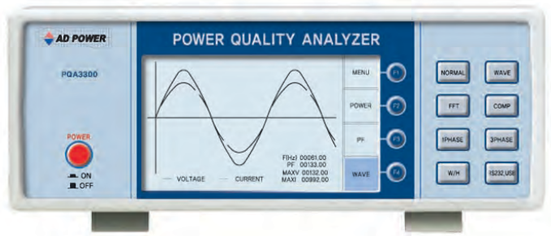
GENERAL SPECIFICATION

- Operating Temperature : 0 ℃ ~ + 50 ℃, 40 ~ 85 RH
- AC line input Voltage : 90 ~ 240 V 50 / 60 Hz
- Dimensions : 280(W) × 95(H) × 270(D) mm
- Weight : ≒ 2.5 kg

AD POWER CO., LTD.

Electric & Electronic Measuring Device, Automatic Control

P QA3300 Power Quality Analyzer



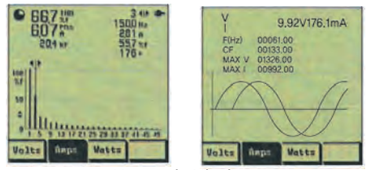
FEATURE

- Real Time Clock installation, DSP application
- Basic Power Accuracy ± 0.1%
- 50μA~50A Range Extension
- 3V,3A Power, PF at the same time display event
- 10Hz~250kHZ Bandwidth
- 1P2W,3P3W(Un Balance)
- Measurement Range : V, A, W, VA, Var, Flicker, PF, cosθ, Hz, wh, Ah, High Frequency
- Crest Factor Function
- Flicker Function
- Harmonic Measurement Range 51th
- FFT function
- THD

SPECIFICATION

- Power Supply : AC 100~240V,50/60Hz
- Weight : 2.5kg
- Dimensions : 280W × 95H × 270D(mm)
- Accessory : Power Cord(220V), Connector Cord
- Application Program Software(option)

P QA1200 Power Quality Analyzer



Harmonic Display

FEATURE

This model is able to analyze the power quality of your building or factory as well as power quality of 1 phase line. It shows amplifier, flicker, power depression, power rising, high frequency (50 kHz) of 1phasr or 3 phases. It also analyze real-time amplifier and store the power volume data 1 hour term per day to analyze it with timer. It is able to analyze more detailed power quality through applied soft ware and to measure Crest Factor.

SPECIFICATION

Harmonics

Function	Range	Accuracy
Volts	1st to 21st	± (3 % + 2) to ± (10 % + 5)
Amps	1st to 21st	± (3 % + 2) to ± (10 % + 5)
WATT	1st to 21st	± (3 % + 2) to ± (10 % + 5)

POWER

Function	Range	Accuracy
Watts, VAR, VA	10 mW to 600 kW	± (1.5 % + 5dgts) + probe spec
PF, DPF	0.001 to 1.000	± 0.04
Bandwidth	10 ~ 50 kHz	

METER

Function	Range	Accuracy
Volts	2 V ~ 600 V RMS	± (0.5 % + 5 dgts)
Amps	20 mA ~ 1000 A	± (1 % + 5 dgts)
Frequency	10 Hz ~ 50 kHz	± (0.3 % + 2)

WATT Hour
- 1 Hour, 1 Daily, Chart
- All Data Real Time Measurements and Memory
- All Data Waveform Display

Measurements Lines
AD/DC 1P2W, 3P3W
(1P2W → 20mA~15A (Direct))
10A-1000A (Clamp on sensor)

Address : 402-1304 Bucheon Techno-Park 4BL 193 Yakdae-Dong Wonmi-Gu Bucheon City Gyeonggi-Do, Korea
Phone & Fax : Phone (+82-32-234-3791~6) Fax (+82-32-234-3793)
E-mail : adc@adpower21.com URL http://www.adpower21.com

HPM-300

Handy Power Meter

FEATURE

This model is the economical hand-held type power analyzer and it is easily able to measure power consumption of home-appliance or OA instrument that the power is less than 220 V / 15 A (4 kW) with Plug & Play checking system

SPECIFICATION

- This unit is able to measure high electrical power (100 uA ~1000 A)
- 100 uA ~15 A Direct Measurement (± 0.4 %)
- LCD Display
- Display : True power(W), Apparent power(VA), Power Factor, True RMS Voltage & Current Frequency, Energy Integrator.
- Interface : RS 485 or Rs 232C
- Watt-hour range:24hour
- Temp.(0 ℃ ~ 45℃, 40 ~ 85RH)
- Size 90(W) × 180(H) × 50(D)mm
- weight ≒310g
- Accessories: Manual, Load Wire,Fuze, Adapter

HPM-100(wattman)

Standby Power Meter

FEATURE

WATTMAN has a international public outlet in front.
So we can easily measure standby and consuming power by plugging in without additional connectable wire.
Measurement items are alternating Voltage, Current, Power,Factor Frequency etc, and this Meter can also show Electric charge and Co2 emission according to the power quantity.

SPECIFICATION

- Voltage Range: AC 1V~500V
- Current Range: AC 100㎂ ~ 15A
- Power Range: 1mW ~ 3.5kW(±0.6%)
- Power Factor Range: ± 0.001~1
- Watt hour Range: 0~100kWh
- interface : RS 232C
- Weight & Dimensions : 180 × 90 × 49(mm), ≒ 310g

AD POWER CO., LTD.

Electric & Electronic Measuring Device, Automatic Control

V-5000 Series

Analog Oscilloscope

V-212

V-5000 Series

SPECIFICATION

- DC 20 MHz ~ 100 MHz
- Dual channel / dual tracing, X-Y mode
- 6″ display, genuine Japanese Toshiba oscilloscope tube
- High sensitivity triggering, up to 1 mV / division
- TV synchronous separation circuit to observe stable TV signal V-212 / V-5030(A) / V-5040(A) / V-5060(A) / V-5100 / 20 MHz / 30 MHz / 40 MHz / 60 MHz / 100 MHz

M AG 203D /
M AG203AD

Signal Generator

MAG 203D

MAG 203AD

SPECIFICATION

- Signal Frequency : 0.1 Hz ~ 2 MHz, Continuously variable
- Waveform : Square, Sine
- Output Attenuator : 0 dB, 20 dB, 40 dB, 60 dB
- Output Level : 20 Vp-p in open circuit, not less than 10 Vp-p with 50 Ω load Rising and Falling Edge of Square not more than 35 ns Sine Distortion less than 1 %, Amplitude-frequency Characteristics : ± 0.3 dB with in 100 kHz, ± 1 dB above 1 MHz
- Frequency : 20 Hz ~ 30 kHz
- Power Supply : AC 220 V (110 V Optional)

SM5010/5011
SM5005/5006

Spectrum Analyzer

SM5010/5011

SM5005/5006

FEATURE

SM5010 / 5011 spectrum analyzer is used for the early test in the development of electrical products, troubleshooting of CATV/mATV system as well as the test and trouble diagnosis of cellular phone/paging systems. Combined with the near field probes of Mz 530, it can detect the missing fields of radio frequency.

SPECIFICATION

- Frequency Range : 0.1 ~ 1000 MHz
- Output Impedance : 50 Ω
- Output Jack : BNC
- Input Capacitance : About 2 PF
- Maximum Input Level : +10 dBm (According to Frequency Range), DC Voltage : 20 V
- Power Supply Voltage : +6 V DC Current : 8 mA(Probe for, Magnetic Field), 24 mA (Probe for Electric Field)
- Dimensions : 40 × 19 × 195 mm

Address : 402-1304 Bucheon Techno-Park 4BL 193 Yakdae-Dong Wonmi-Gu Bucheon City Gyeonggi-Do, Korea
Phone & Fax : Phone (+82-32-234-3791~6) Fax (+82-32-234-3793)
E-mail : adc@adpower21.com URL http://www.adpower21.com

Function Generator

Function Generator

SM1641/SM1641A(with AM FM)SM1642/SM1642A(with AMFM)/SM1640/SM1640A(with AM FM)/SM1640B

SPECIFICATION

	SM1641(A)	SM1642(A)	SM1640(A)
Frequency	0.1 - 2 MHz	0.1 - 5 MHz	0.1 - 10 MHz
Output Waveforms	Sine, Triangle, Square, Positive and Negative Pulse, Ramp		
Output Impedance	5 0 Ω ± 10 %		
amplitude	Not less than 20 Vp-p(Open Circuit)		
DCVoltage	0 − ± 10 V Continuously Adjustable		
Symmetry Range	90:10 -- 10:90		
Rising Edge of Square	less than 100 ns	less than 50 ns	less than 25 ns

DC Pow er Supply

DC Power Supply

Dual Output DC Pow er Supply
300D-2 Series

Single Output DC Pow er Supply
300B/AB Series

Dual Output DC Pow er Supply
300D-2 Series

SPECIFICATION

Voltage		0 to Described Continuously Variable
	Stability	Voltage : < 0.0 % + 2 mV Load : < 0.0 % + 2 mV
	Recover Time	< 100 μS
	Ripple & Noise	< 1 mV RMS (efficient)
	Temperature Factor	< 300 PPM / ℃
Current		0 to Described Continuously Variable
	Current, Load Stability	< 0.2 % + 3 mA
	Ripple & Noise	< 3 mA RMS
Working Condition	Line Power Supply	220 V ± 10 % 50/60 Hz (Alterable if needed : 110 ± 10 % 50 / 60 Hz)
	Operating	Temperature : -10 ℃~ 40 ℃ Moisture < 90 %
	Storage	Temperature : -20 ℃~ 80 ℃ Moisture < 80 %

Electric & Electronic Measuring Device, Automatic Control

A2011 /2013

Portable Volts & Ammeter

FEATURE

The A2013 and A2014 are moving iron and rectifier type instruments using a Taut-Band suspension and hair spring system. These instruments have excellent reproducibility and are highly resistant to vibration and shock.

SPECIFICATION

- Principle : Moving iron or Rectifier type
- Operating Temp & Humi : 0~40 ℃, 40 ~ 80 % RH
- Rated Accuracy : ± 0.5 % of full scale value
- Scale Length : Approx, 135 mm (5.3 / 8″)
- Frequency Influence : Within 0.2 % of indicated value (45 to 65 Hz)

A2041/2042

Portable Wattmeter

FEATURE

The A2041 and A2042 are electrodynamometer type and use the hair spring system. There instruments are highly reliable, and designed for use in laboratories for presistios measurement of power at DC and commercial frequencies up to 1,000Hz. There instruments are housed in phenol resin cases and shielded with double permally sheets to block external magnetic fields.

SPECIFICATION

- Principle : Electrodynamometer Type
- Rated Accuracy : ±0.5% of Full Scale Value
- Scale Length : Approx. 135 mm (5.3 / 8″)
- Frequency Ranges : A2041 ; DC, 25 to 1,000 Hz (cos∅= 1.0)
  DC, 25 to 500 Hz (cos∅= 0.2)
  A2042 ; DC, 25 to 1,000 Hz (cos∅= 1.0)

A2038/2039

Power Factor & Frequency Meter

FEATURE

The A2039 is used for measurement in single-phase and balanced three-phase circuits.
from a phase discriminating circuit, the output of the built-it transducer produces a DC proportional to the phase between voltage and current to operatethe DC indicator.

SPECIFICATION

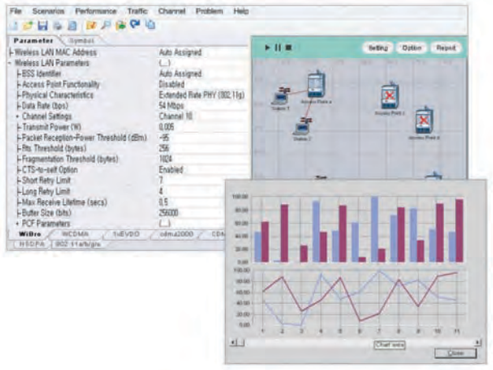
- Principle : Frequency sensing transducer
- Rated Accuracy : ±0.2% of full scale value on 45 to 65Hz range
  ±1.0% of full scale value on 20 to 100Hz range
  ±0.5% of full scale value on 100 to 500Hz range
- Scale Length : Approx. 135mm(5-3/8”)
- Principle : Rectifier Type
- Rated Accuracy : 3.0%
- Scale :Power Factor : Lead 0-0.3-1.0-0.3-0 Lag
- Phase Angle : Lead 90 ° -0 ° -90 ° Lag
- Effective Power Factor Measuring Range : Lead 0.5-1.0-0.5 Lag
- Scale Length : Approx.135mm(5-3/8 ″)
- Frequency Influence :Within ±1.5 ° Phase angle at 45~65Hz

AD POWER CO., LTD.

Address : 402-1304 Bucheon Techno-Park 4BL 193 Yakdae-Dong Wonmi-Gu Bucheon City Gyeonggi-Do, Korea
Phone & Fax : Phone (+82-32-234-3791~6) Fax (+82-32-234-3793)
E-mail : adc@adpower21.com URL http://www.adpower21.com

ANYPA WiBro Simulator

802.16e WiBro Protocol Simulator



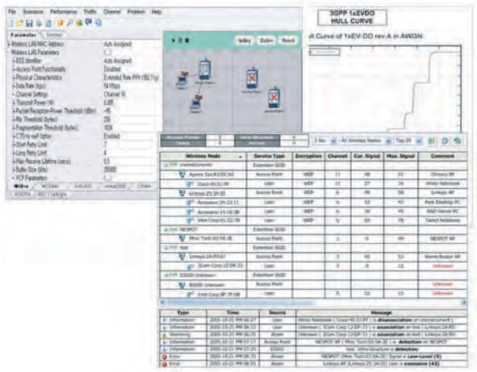
FEATURE
- 802.16e WoBro Network Research simulates the input parameters of Link Level, System Level net Design, Constructions & etc.
- The WiBro net and forecasting analysis through the simulator.
- Assures the every kind of related equipments design and development for Net.
- Optimization, Terminal development, Wireless Transmission performance test.

USAGE
- 802.16e WiBro protocol simulator to understand WiBro Technology.
- The advance communication simulater for the researchers.

DESCRIPTION
- Supports all parameters of 802.16e WiBro protocol.

ANYPA WiBro P/a

802.16e WiBro Protocol Analyzer



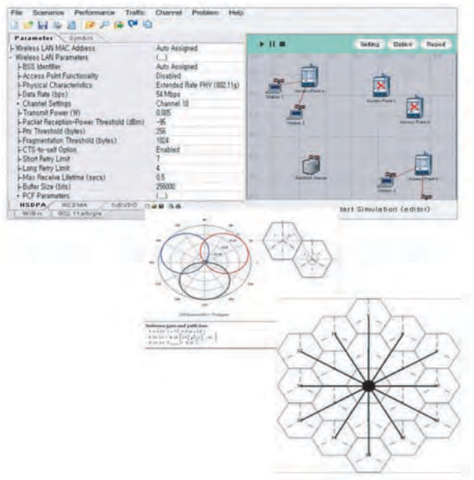
FEATURE
- 802.16e WoBrp Air Interface gathers the real time data or captured data and publishes results by various types of analysis.
- Optimization, Terminal development and maintenance.
- Well Organized GUI Based Statistics Report.
- Delivers a competitive advantage for CDMA, 2000, 1xEVDO, UMT S/W, HSDPA service provider.

USAGE
- 802.16e WiBro protocol Analyzer to Analysis WiBro Technology.
- The advance Wireless communication Analyzer for the researchers.

DESCRIPTION
- Supports all parameters of 802.16e WiBro protocol.

ANYPA HSDPA Simulator

High Speed Downlink Packet Access (HSDPA) Simulator



FEATURE
- Delivers a competitive advantage for CDMA, CDMA2000, 1x EVDO, UMTS, WCDMA and HSDPA service providers.
- Improve the user experience of new, converged services such as streaming video, mobile Internet browsing, and bundled combination by boosting network performance.
- Offering well organized Wireless Network scenario and friendly demonstration structure.
- Hexagonal grid 3 sector based cell structure demonstration.
- Transmit antenna diversity (no MIMO, Open-loop, Close-loop)
- Inter Cell interference.
- Vehicular Speed Demonstration.

USAGE
- HSDPA Simulator to Analysis HSDPA Technology.
- The advance Mobile communication Analyzer for the researchers.

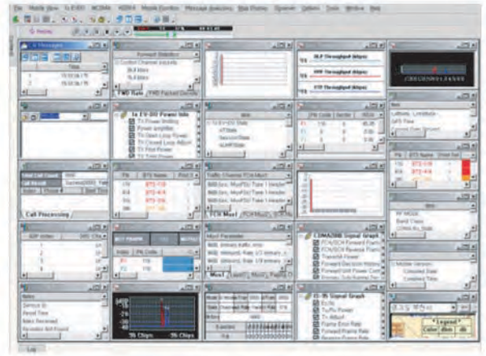
DESCRIPTION
- Supports All parameters of HSDPA protocol.

C&C INSTRUMENTS CO., LTD.

Electric & Electronic Measuring Device, Automatic Control

ANYPA HSDPA P/A

High Speed Downlink Packet Access(HSDPA) Protocol Analyzer



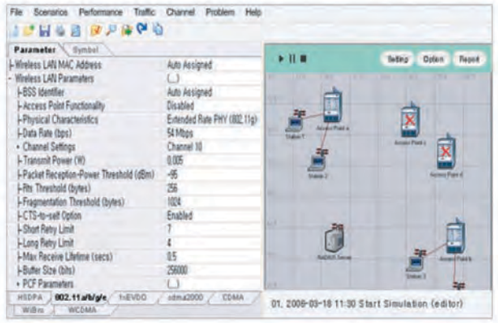
FEATURE
- HSDPA Air Interface gathers the real time data or captured data and publishes results of 3G or 3.5G mobiles by various types of analysis.
- Optimization, Terminal development and maintenance.
- Well Organized GUI Based Statistics Report.
- Delivers a competitive advantage for CDMA, CDMA 2000, 1xEVDO, UMT S/W, HSDPA service provider.

USAGE
- HSDPA Protocol Analyzer to understand HSDPA Mobile Technology.
- Supports old version product like 2G, 3G and PDA.

DESCRIPTION
- Supports all parameters of HSDPA protocol.

ANYPA 802.11a/b/g/e

802.11a/b/g/e Simulator for Wireless Network



FEATURE
- 802.11a/b/g/e network associated all inputted parameters demonstration and statistics information with well organized GUI.
- 802.11a/b/g/e Network forecasting demonstration through the simulation.
- A diversity data analysis demonstration by optimization the tool of WLAN network.
- Supported Smart Mode, Direct Mode & Monitor Mode selection for all channels by user defined input parameters.
- 802.11a/b/g/e frame decoding simulation.

USAGE
- 802.11 a/b/g/e Quality of Service (QoS) of WLAN.
- The advance Wireless LAN analysis simulator for the researchers.

DESCRIPTION
- Supports IEEE 802.11 MAC QoS.

ANYPA RF Grabber

802.11a/b/g(10Mb) RF Grabber Probe

FEATURE
- A Hardware foundation wireless LAN Grabber Probe can get all 802.11a/b/g packet and send them (all captured packets to the Headquarters) using IP Network.
- By establishing the Wireless Internet Zone into the Airport, Campus and office, it is manage the network by the Operators because all traffics are sent to headquarter.
- Atheros AR52xx Chipset use 802.11a/b/g duplex operation and with a/g mode 108M diplex operation is possible.
- Grabber Web Management System & remote Setting.
- Grabber can use interface WLAN multi task product which is changeable by software.

USAGE
- Troubleshoot applications on a WLAN.
- Monitor client connectivity, traffic problems & others.

DESCRIPTION
- On-Probe Filtering, Access Point, Router and WLAN Protocol Analyzer

Address : 203-806 Techno-park 192 , Yakdaedong, Wonmigu, Bucheon, Kyunggido, 420-831 Korea
Phone & Fax : Phone (+82-32-327-3344) Fax (+82-32-327-3348)
E-mail : cncmaster@cncinst.co.kr URL http://www.cncinst.co.kr

ANYPA u-Smart Home Network

u-Smart Home Network Solution

FEATURE
- Secure and safety
- User friendly automation
- High Speed automation
- Well organized Education Package for UBQ Education Course
- Price is so cheap & has also discount for student

USAGE
- u-Smart Home solution for u-Smart Home Network Education Package using panel.
- u-Smart Home solution for apartment or building.

DESCRIPTION
- Home Automation, Home Security, Home Sensor, Home Entertainment, Health Care, Home Information & Health Exercise.

ANYPA Parking System (APS)

Intelligent Building System (IBS) Solution

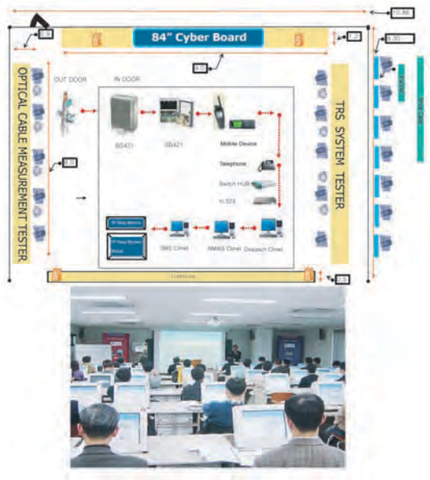
FEATURE
- Parking Space Counter.
- Loop Coil Detector & Barrier Gate System.
- Ultra Sensor for other vehicle detection.
- Parking Monitoring from home (Application) using HDTV, Home Pad.
- Parking light etc (total parking materials included)

USAGE
- For Large scale car parking solution for any apartment.
- Car parking system for Shopping mall.

DESCRIPTION
- Car Parking management materials and Car Parking Automation Application.

ANYPA Tetra TRS Universal LAB

Digital TRS Wireless Communication LAB



Purpose of Education
- Cultivating core engineers leads a domestic consolidation command wireless network
- Business upbringing technique manpower to co-operate enterprises, universities, colleges and governments
- Lead information world through a technique education which changes suddenly to precede cable
- By special technique advance education, supply special engineers into overseas as well as domestic market
- Ensure excellent place with computer in administration of education through upbringing field expert
- The strong education culture there is the bright future for student

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ANYPA WLAN

WLAN Protocol Analyzer

FEATURE
- Logging 14 channels at the same time
- Support 802.11 (from Version 2.0)
- Support education package (WLAN Protocol Analyzer design & development)
- Data logging with packet generation, real time packet data
- 802.11 a, b and 802.3 Protocol Analyzer
- Problem finder function
- Support Excel, TXT,

USAGE
- Wireless network protocol analysis and data communication practice package

DESCRIPTION
- 802.11 Protocol Decode + Network Management System (NMS) + Net Tools + Packet Filter + Finder Diagnosis + Security

ANYPA/ GIGABIT LAN

Gigabit / LAN Protocol Analyzer

FEATURE
- Practical network constitutions
- Network traffic matrix
- Real time flow board
- Statistic report
- Network management
- Protocol distribution
- Gigabit Protocol structure analysis on network TCP/UDP flow
- Packet blocking system
- Net tool and education package

USAGE
- NMS function of LAN communication protocol analysis and data communication practice package

DESCRIPTION
- Network Management (NMS) + Protocol Decode + Net Tools + Packet Block + Education Package + Packet Filter + Packet Blocking System + SNMP Management

ANYPA NT-1000

Network Training System

FEATURE
- Set of LAN and WLAN network
- Understand internet, serve net and serve net layers by DSU/CSU, router, hub setting
- CDMA wireless network analysis and signal message
- Packet generator
- Protocol decoder
- Protocol analyzer design
- Fire wall practice
- Optimum cable practice
- NMS

USAGE
- IT course in university

DESCRIPTION
- Network Wire + Network Construction and Traffic Analysis + LAN Cable Tester Design and Making + Network Security + Network with optical module + LAN & WLAN Protocol Analyzer + Hardware Practice

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ANYPA CDMA

CDMA Protocol Analyzer

FEATURE

- Analytical module for optimize a base station
- Temporal analyzer graph (support Ec/Io, Neighbor)
- Support Power Control, Vocoder Rate, FER graph
- Auto call generation and statistic report
- Support IS 95 A/B
- Status information of mobile station (ESN, Chn, RF mode, SCI)
- Support 4 fingers
- Presentation accumulated statistics for each channel
- Status display, Memory viewer, logging, Diagnostic message display

USAGE

- Optimize CDMA base station and CDMA education

DESCRIPTION

- Temporal Analyzer + Channel Display + Memory Viewer + Finger + Log Data Analyzing + Markov Test + Handset Emulation + DIP Switch + Protocol Analyzer

ANYPA IMT-2000

IMT-2000 Protocol Analyzer

FEATURE

- Analytical module for optimize a base station
- Powerful Mobile Diagnostic Monitor (MDM) for over-the-air CDMA system
- Measurement system for voice call completion ratio, data call and system verification
- Support IS 95 A/B/C and CDMA2000 1x and EV-DO
- US IS-95 series (CDMA cellular) and J-STD-008 (CDMA PCS) standard of target system
- Analysis packet traffic
- Various display type of functions as table, graph, map, and statistics.
- Analysis of mobile communication net

USAGE

- Optimize CDMA base station and CDMA education

DESCRIPTION

- Mobile Information + Channel Statistics + IMT-2000 Signal + Memory Control + Call Generator + Message Analyzing + Map Display + Replay

Mobile Communication Universal Lab

FEATURE

- Connector training System
- Repeater Training System
- Cable Training System
- Amplifier Training System
- Antenna Training System
- CDMA / IMT-2000 Signal Analyzing
- Diagnose complex obstacle and maintain repair practice
- Decline loss efficiency signal, correspond amplitude practice

USAGE

- IT Course in University and Education Sector

DESCRIPTION

- IMT-2000 Protocol Analyzer + CDMA Protocol Analyzer + WLAN Protocol Analyzer + NT-1000 + Practice Hardware

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ANYPA EMBEDDED SYSTEM

Embedded Network System

FEATURE

- Universal solution through by network system
- Variety of resources on developing embedded system and network equipments
- Theoretical concept, simulation and design of many types of network
  eg) E1/T1, ATM, MPLS/GMPLS, Gigabit Ethernet
- LAN protocol analysis with TCP/IP

USAGE

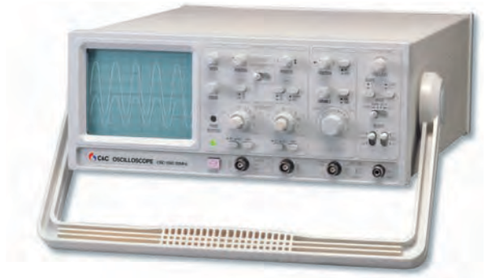
- Research institute for test and research tool

DESCRIPTION

- Manufacturing Router + Manufacturing AP + Architecture CPU and Understand H/W Specification + Manufacturing Boot Loader + Manufacturing Kernel + Manufacturing File System

OSC-1100 / 1060 / 1035 / 1030 / 1020

100/60/35/30/20 MHz Analog Oscilloscope



FEATURE

- Frequency : DC ~ 100 / 60 / 35 / 30 / 20 MHz
- Trigger : 100 / 60 / 35 / 30 / 20 MH
- Vert Trigger
- Vertical Sensiticity : 5mV(MAG 1㎷)
- Channel : 2CH
- Trace : 2 ■ 370 × 137 × 416
- Cooling Fan System ■ 8.2 Kg

DESCRIPTION

- Measured Waveform Frequency , Voltage and repair or Design of Electronic System

FG-8021C

20 MHz Function Generator with Counter

FEATURE

- Frequency Range : 0.2Hz to 20MHz In the 8 Ranges
- Versatile Waveforms : sine, Triangle, Square,Ramp and pulse, Sawtooth
- 0.2Hz ~ 150MHz INT/EXT Frequency Counter
- Fast, High-Resolution,8 Digits LED Display
- TTL/CMOS Leveled Square Wave Output
- DC Offset Control
- AM/FM Modulation ■ 255 × 80 × 260
- Internal/External Burst ■ 2.7 Kg

DESCRIPTION

- Supply Many Kinds of Waveform for Telecommunication & Electronic System

■ Address : 203-806 Techno-park 192 , Yakdaedong, Wonmigu, Bucheon, Kyunggido, 420-831 Korea
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FG-220C / 205C / 202C — 20 / 5 / 2 MHz Function Generator with Counter

FEATURE

- Frequency Range : 0.2Hz~20MHz (8 Range) / 0.05Hz~5MHz (7 Range) / 0.02Hz~2MHz (7 Range)
- Built-in 6 / 5 Digital Green LED display
- Versatile Waveforms : sine, Triangle, Square, Ramp and pulse, Sawtooth
- 0.2Hz ~ 150MHz INT/EXT Frequency Counter Self • Made Insert ASIG
- Built-in 6 Digits Green LED Display
- TTL/CMOS Leveled Square Wave Output
- DC Offset Control
  - 255 × 80 × 260
  - 2.7 Kg

DESCRIPTION

- Supply Many Kinds of Waveform for Telecommunication & Electronic System

FC-155 / FC-121 — 5.5 MHz / 2.1 GHz Reciprocal Frequency Counter

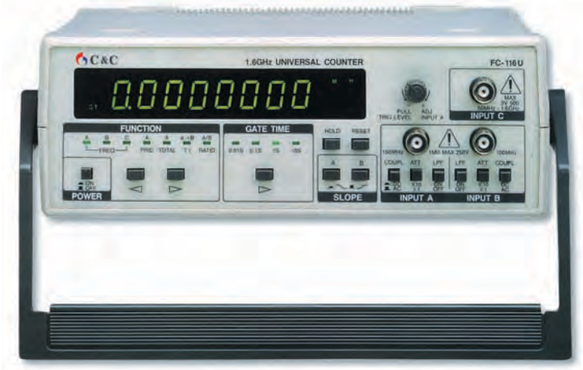
FEATURE

- Frequency Range : 0.2 Hz ~ 5.5 GHz / 0.2 Hz ~ 2.1 GHz
- Built -in CMOS Gate Array
- Fast, High -Resolution 10 Digits Green LED Display
- Self Diagnosis Routine
- INT/EXT Time Base Selectable
- Low Pass Filter (100KHz ,3dB)
  - 255 × 80 × 260
  - 2.8 Kg

DESCRIPTION

- Measure Frequency, RPM, Period, Time Interval & Others

FC-150U / FC-116U — 150 MHz / 1.6 GHz Universal Frequency Counter



FEATURE

- Frequency Range : 0.2 Hz ~ 150 MHz / 0.2 Hz ~ 1.6 GHz
- Built -in CMOS Gate Array
- Fast, High -Resolution 10 Digits Green LED Display
- INT/EXT Time Base Selectable
- Low Pass Filter (100KHz ,3dB)
- Universal Function Slope, Trigger, Time,Interval Measurement, Ratio Measurement
  - 255 × 80 × 260
  - 2.8 Kg

DESCRIPTION

- Measure Frequency, RPM, Period, Time Interval & Others

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AO-301C — Audio Oscillator (with Counter)

FEATURE

- Frequency Range : 10Hz ~ 1MHz (5Decade Steps)
- Very LOW Distortion : <0.5%
- Output Voltage : 22.6Vp-p Option Circuit
- Built-in 5 Digits Green LED Display
- 400Hz & 1KHz Fixed Special Function
- Sine Wave and Square Wave Easily Choice
- Variable Frequency with Poly Varicon
  - 255 × 90 × 280
  - 2.5 Kg

DESCRIPTION

- Products Test for Audio Products

DM-540TR — 4 1/2 Digital Multimeter

FEATURE

- 6 Functions (AC/DC Voltage, AC/DC Current, Resistance and Diode Test)
- 4 1/2 Digits
- High Resolution 10μV, 10nA
- High Current Range 10A
- High Voltage Range 1000V
- All Range Protected
  - 255 × 80 × 260
  - 2.4 Kg

DESCRIPTION

- Measure Voltage, Current, Resistance, Diode & Others

DSP-303DM — DC Switching Power Supply

FEATURE

- Multi-channel Switching Power Supply
- 5 Channel, 209W High Quality Power Supply (Variable DC ~ 30V / 3A Dual, Fixed DC +12V/1A, -12V/1A, +5V/1A)
- Thermal Shutdown (Fixed DC Output only)
- Compact Size : 255(W) × 80(H) × 260(D) mm
- Current Limit & Over Protection
- Digital Meter
  - 255 × 90 × 270
  - 2.2 Kg

GENERAL SPECIFICATION

- Voltage 0~30V Dual, ±12V & 5V Fixed
- Current 0~3A Dual, 1A Fixed
- 3kV (10mA)
- Ripple Voltage 〈 150mV(p-p)
- Temperature -5℃ to +50℃
- Power Free Voltage (90 ~ 260V, 50/60Hz)

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DP-305XX

DC Power Supply

- 250 X 155 X 275 (DUAL), 134 X 155 X 275 (SINGLE)
- 4.2 / 8 Kg

FEATURE

- Min. Ampere 〈 100mA
- Ripple Voltage 〈 1.5mV(p-p)
- Stability 〈 5mV
- Fixed Output 5V 2A ± 10%
- Temperature 0 to + 40 ℃
- Power 115 / 230V ± 10%, 50/60Hz

MODEL NO	Variable Voltage	Variable Ampere	Fixed V/A	Display
DP-305SD	0 to 30V	0 to 5A	5V / 2A	Single, Digital
DP-303SD	0 to 30V	0 to 3A	5V / 2A	Single, Digital
DP-305DD	0 to ±30V	0 to 5A		Dual, Digital
DP-303DD	0 to ±30V	0 to 3A		Dual, Digital

US-9123D / US-9123

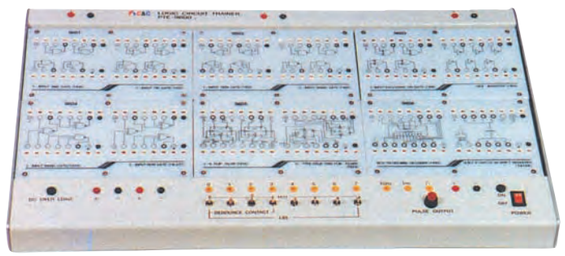
All in One Instrument

FEATURE

- One Instrument with test and measuring system (Frequency Counter, Function Generator, Digital Multimeter and Dual type Power Supply)
- Ideal for Laboratory, Production Line and R&D Engineer's Working Bench
- High Accuracy and Low cost for Specialist and Hobbyists
- Unique Performance to save space
- Light Weight and Attractive Design ■ 370 × 160 × 340
- INT/EXT Time base selectable ■ 15.0Kg

LT-9600M

Logic Circuit Trainer



USAGE

- Educational circuit practice for students

DESCRIPTION

- Practicing and understanding 18 experiment for logic circuits

FEATURE

- Composing of 1 frame and 6 modules
- Indicating green and red colors for input and output

DC Voltage	+ 5V, 1A / Each 6
Display	Logic input terminal: Green
	Logic output terminal: Red LED
Dual, Digital	1 Hz, 10 Hz (H: 4.5V, L:2.0V approximate)
Dual, Digital	5 Slide Switches

Module (6 EA)	
2-Input AND gate & 2-Input OR gate	HEA INVERTER & Exclusive OR gate
2-Input NAND gate & 2-Input NOR gate	J-K Flip Flop & D-Flip Flop
2-Input NAND gate & 3-Input NOR gate	BCD to decimal Decoper & 8 Bit, P-OUT/ S-IN shift Resistor

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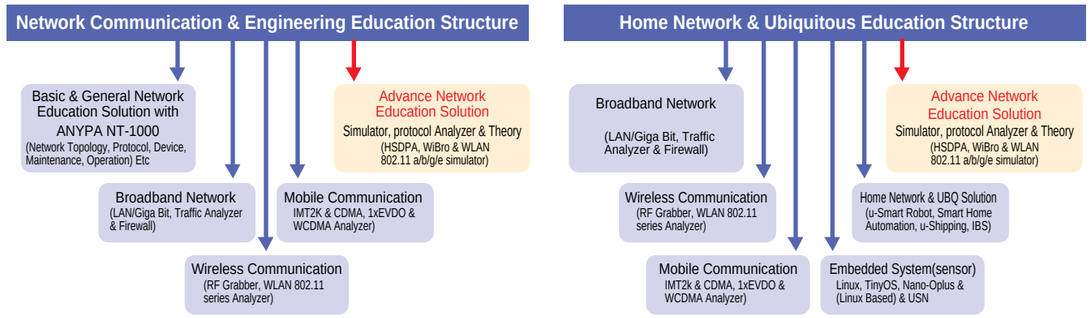
Education Contents

C&C's Education Structure


Network Communication & Engineering Education Structure
Basic & General Network Education Solution with ANYPA NT-1000
(Network Topology, Protocol, Device, Maintenance, Operation) Etc
Advance Network Education Solution
Simulator, protocol Analyzer & Theory
(HSDPA, WiBro & WLAN 802.11 a/b/g/e simulator)
Broadband Network
(LAN/Giga Bit, Traffic Analyzer & Firewall)
Mobile Communication
IMT2K & CDMA, 1xEVDO & WCDMA Analyzer)
Wireless Communication
(RF Grabber, WLAN 802.11 series Analyzer)
Home Network & Ubiquitous Education Structure
Broadband Network
(LAN/Giga Bit, Traffic Analyzer & Firewall)
Advance Network Education Solution
Simulator, protocol Analyzer & Theory
(HSDPA, WiBro & WLAN 802.11 a/b/g/e simulator)
Wireless Communication
(RF Grabber, WLAN 802.11 series Analyzer)
Home Network & UBQ Solution
(u-Smart Robot, Smart Home Automation, u-Shipping, IBS)
Mobile Communication
IMT2k & CDMA, 1xEVDO & WCDMA Analyzer)
Embedded System(sensor)
Linux, TinyOS, Nano-Oplus & (Linux Based) & USN

Education Course	No	Product Name	Total Hours	Education Contents
High Speed Network Course	1	ANYPA NT-1000	48~80	Basic & General Network training course
	2	ANYPA Gigabit/LAN Protocol Analyzer		High Speed Broadband Network Education. Various types of protocol analysis, Broadband network environment setup, maintenance & operation. Packet traffic monitoring, security etctheory and practical Education course
	3	ANYPA Firewall Security		Education for Network security
	4	ANYPA Traffic Performance Analyzer		Packet capturing, transmission monitoring
	5	ANYPA WLAN 802.11 a/b/g Protocol Analyzer		Wireless Network & Communication Education course with Universal Wireless Network Lab facility. Check signal strength, channels, nodes, protocol decode, frame & various functions analysis
Mobile Communication	6	Mobile Communication Universal LAB	48~80	Mobile Environment Establishment, Design & Development, Basic course of mobile communication
	7	ANYPA CDMA DM Protocol Analyzer		Education for CDMA Technology&Development. Signal Processing, Call States, 4-finger, Qos Etc
	8	ANYPA IMT-2000 with 1xEVDO DM Protocol Analyzer		Education for IMT-2000 with 1xEVDO Technology Design & Development. GPS & GIS Mapping Capture, CAI Capture, Antenna & Propagation, Channel Characteristics & Modeling, System Architecture, Etc
	9	ANYPA IMT-2000 & WCDMA DM Protocol Analyzer		Education for IMT-2000 with WCDMA Technology Design & Development

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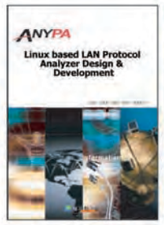
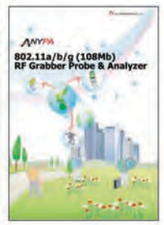
E-mail : cncmaster@cncinst.co.kr URL http://www.cncinst.co.kr

C&C's Education Structure

Education Course	No	Product Name	Total Hours	Education Contents
Embedded System & Universal Sensor Network	10	Embedded System Network	48~80	Embedded System Design & Development, System level design, ARM 7, 9 processor Design & Development Etc
	11	Router Design & Development		Router Design & Development
	12	Access Point (AP) Design & Development		Access Point Design & Development
	13	Linux Based LAN Protocol Analyzer		Linux Based LAN protocol analysis & Sniffing
	14	Universal Sensor Network (USN)		Sensor Network Education, Sensor based application Design & Development
Ubiquitous Network	15	ANYPA u-Smart Home Network Education & Panel	48~80	ANYPA u-Smart Home Automation, Security, Sensor, Entertainment, Information, Health Care & Exercise automation Design & Development
	16	ANYPA u-Smart Robot Design & Development		u-Smart Robot Design & Development
	17	RFID System Design & Development		RFID System, Tag reader & Tag Design & Development, Active Tag & Passive Tag
	18	ANYPA u-Telematics		u-Telematics Design, Development & Automation
	19	ANYPA u-Shipping		u-Shipping Design, Development & Automation

C&C's Textbook for Education Package





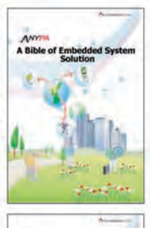
C&C INSTRUMENTS CO., LTD.

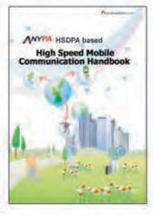
Electric & Electronic Measuring Device, Automatic Control

C&C's Education Structure

Education Course	No	Product Name	Total Hours	Education Contents
Advance Network Communication	20	ANYPA 802.16 e WiBro Simulator & Protocol Analyzer	48~80	802.16e WiBro Network Overview, Simulator & Protocol Analyzer for researcher's WiBro Net & Forecast Analysis, Optimization, Terminal development and Performance, Wireless Transmission Analysis, Large Scale Data Packet Transmission Method. Power Control, Error Control & System Architecture.
	21	ANYPA HSDPA Simulator & Protocol Analyzer		Extended technology of WCDMA, EV-DO and CDMA 2000. HSDPA Technology Overview, HSDPA Simulator & Protocol Analyzer for Researcher's. Base Station development, Transmit Antenna diversity, Hexagonal grid 3 sector based cell structure theory & analysis, power control, GIS & GPS mapping capture, Inter Cell Interference, Vehicular Speed Demonstration, Traffic model design, Antenna Setup and design Etc.
	22	ANYPA 802.11 a/b/g/ĕ Simulator & Protocol Analyzer		802.11 a/b/g/ĕ advance education system for wireless communication for MAC & QoS Education. MAC Layer, Basic Service Set.
	23	ANYPA 802.11 a/b/g(108 Mb) RF Grabber Probe		A Hardware Foundation of Wireless LAN Grabber Probe Design & development which can get all 802.11 a/b/g packet and send them using IP network. We are offering to Design and Develop this RF Grabber Technology.
	24	ANYPA TRS Education System		TRS system & Environment Design & Development.

C&C's Textbook for Education Package





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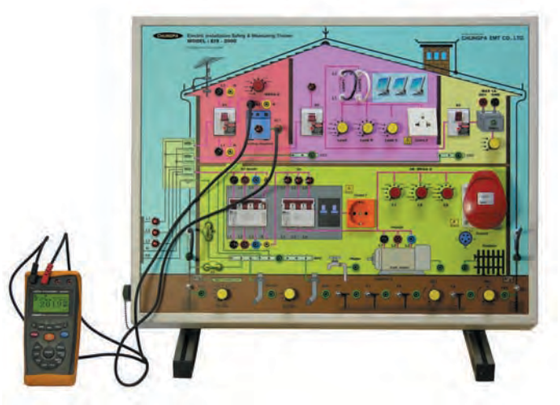
EIS-2000

Electric Installation Safety Measurement Trainer



This product is the integrated simulation equipment for measuring AC voltage, DC voltage, earth resistance, insulation resistance, and leak current in single-phase AC, 3-phase AC, 3-phase 4-wire AC circuits and for allowing the test of electric leak cutoff.

FEATURE

- Electric safety education preventing from electric accidents
- Grounding and electric installation safety education
- Electromagnetic Interferences and their prevention education
- Static electricity disturbances and their prevention education
- Thunderbolt damages protection education
- Inspection prior to the power supply of electric installations
- Experiments and practices of electric equipment safety
- Single phase / three phase voltage measurements
- DC voltage measurements
- R/S/T phase and live line voltage detection
- Insulation resistance measurements
- Ground resistance (2 point, 3 point type) and earth voltage measurements
- The measurement experiment of ground resistance which is influenced by earth resistivity
- Leakage current measurements and electric leakage breaker test
- Measurement of wiring continuity test

CEM-2005/2015/2200

Multifunctional Electric Meter

CEM-2005/2015/2200 is a multifunctional electric meter with which the user can measure electric equipments with various functions very easily and accurately. CEM-2005/2015/2200 is portable and an integrated measuring instrument, which has various measurement functions such as insulation resistance, ground resistance, AC voltage, DC voltage, electroscope test, phase test, AC current, leakage current, and etc.

FEATURE

- Digital Graphic LCD with back-light
- No-Contact Point Push Button Switch
- Precise & Quick Response
- Effective Value Measurement
- Auto Power Off
- Ground resistance measurement with 3-point and 2-point
- Key button back-light and setting time function
- IrDA Communication
- Lead wire connection status display
- Real Time Clock (RTC)
- Minimum value/maximum value/average value measurement

CHUNGPA CHUNGPA EMT CO., LTD.

Electric & Electronic Measuring Device, Automatic Control

CPE-MP100/110 series

Microcomputer Training Kits

CPE-MP100 basically consists of 3 MCU boards, 1 microprocessor master unit(MP100 Master), and 6 interface control experimental modules. In addition, this training kits is supplied with various cables and an experimental guidebook as well. CPE-MP100 has 11 optional experimental control modules like Peripheral expand 8255 module by which the user can learn various things like industrial facility control and automatic control.

MAIN CONFIGURATIONS

- Microprocessor master unit (MP100 Master) : 1set
- MCU board : 3ea
- Experimental control module : 6ea
- Interface cable and high strength jump wire : 1set

FEATURE

- MCU (AT89S51or 8051 / ATmega8535 or ATmega128 / PIC 16F874) characteristics
- Hardware interface
- MCU software and development tool
- General-purpose input/output port; usual input/output port
- Make additions to Parallel I/O port;
- Interrupt control;
- Analog comparator
- Analog to digital converter(ADC)
- Digital to analog converter(DAC)
- SPI(Serial peripheral interface)
- USART(Universal synchronous and asynchronous serial receiver and transmitter)
- RS232, Parallel, and USB interface control
- Graphic LCD Module control
- 7-segment LED control
- Dot-matrix control
- LED control
- Relay control
- Limit switch and read switch control
- 16-Key control
- PWM DC motor control
- Step-motor control
- Thermistor (NTC) and CDS control
- Infrared light sensor control

U D T-250A

Ubiquitous Micro Processor Trainer

UDT-250A is the educational equipment a user can systemically train micro-processor practical application, interfacing remote control with other electronic instruments, and transmitting & receiving data utilizing wireless communication network.

FEATURE

- Wireless communication utilized mobile phones
- Applied various processors (VAR, 8051, 80196, PIC)
- Applied serial communication (RS232)
- Mycom program utilized ISP
- Applied sensors
- Wired/Wireless R/C and metering
- Intelligence home network practicing
- R/C metering and control measuring
- Telematics and logistics system

Address : No.906 Daeryoong Technotown 6th, #493-6 Kasan-Dong, Kumcheon-Gu, Seoul, Korea
Phone & Fax : Phone (+82-2-2108-5980) Fax (+82-2-2108-5988)
E-mail : sale@chungpaemt.co.kr URL http://www.chungpaemt.co.kr

CommuTenna-100 — Wireless Communication and Antenna Trainer

CommuTenna-100 is the educational equipment which the user can learn correct and inclusive principle of Antenna and wireless communication by single or by accessing with PC.

FEATURE

- Understanding of PWM integration and experiment of its characteristics
- Experiment of PLL-VCO(Phase Locked Loop-Voltage Control Oscillator)
- Experiment of phase-shift
- Experiment of Antenna characteristic measuring
- Experiment of bit wireless communication
- Automatic calibration function
- PC software operation system

MAIN CONFIGURATIONS

- Main Controller Board: 1ea
- RF Board (900M): 1ea
- Antenna: 8ea (4set x 2)
- Antennal control Case: 1ea
- AC Power Cable: 1ea
- Keeping Case: 1ea
- RF Cable (1.5m): 2ea
- Serial Communication Cable (RS-232C): 1ea
- Experimental Book: 1ea
- User's Manual: 1ea
- CommuTenna-100 Simulation CD: 1ea
- AC Power Cord: 1ea

CSN-2005 — Integrated Sensor Application Trainer

CSN-2005 is very useful for various and systematical trainings as this trainer consists of one main unit(CSN-200), more than 20 units of sensor circuit experimental module and sensor unit, one bread-board module, one external I/O control module, and PC application software.

FEATURE

- Sensor signal measuring experiment through main unit (CSN-200)
- Real time measuring for sensor signal waves
- Digital graphic LCD display with high sensitivity
- Quick and precise response of measuring values
- PC interface through 2-USB / RS-485 communication
- Sensor characteristic experiment through PC application S/W
- Automatic recognition of sensor modules
- 4-Channel sensor experimental module interface
- External output control practice through sensing data
- RF(Radio Frequency) transmitting practice of sensor values
- Various analogue sensor characteristic practice
- Sensor signal AD converting and digital control
- Sensor circuit controlling practice through Microcomputer(CSN-200)

MAIN CONFIGURATIONS

- CSN-200 Sensor network system (main unit)
- 22 ea of sensor circuit experimental modules
- 15 ea of sensor units
- PC application software, accessories, system case, and etc.

CHUNGPA CHUNGPA EMT CO., LTD.

Electric & Electronic Measuring Device, Automatic Control

CPS-SQ38 — Electrical Sequence Training System

CPS-SQ38 is designed with actual electric parts. So, the user can do wiring and operate personally with this training system. Especially, through CPS-SQ38, the users like engineers and students can understand electric sequence principal and the electric parts structure and can systemically learn and make an experiment about circuit connection and operating principal.

FEATURE

- Electric sequence circuit control
- Sequence circuit by PLC control
- Relay control sequence
- Understanding and control practice of magnetic contactor, timer, electric switch circuits
- Sequence control by Proximity sensor
- Sequence circuit connection experiment
- Earth Leakage current Circuit Breaker (ELCB) practice

MAIN CONFIGURATIONS

- Source: Three-Phase AC 220V
- ELCB(Earth Leakage current Circuit Breaker) : 1ea
- MC; Magnetic Contactor(5a2b) : 3ea
- Auxiliary Contactor(1a3b) : 3ea
- EOCR(Electronic Over Current Relay, 1/2HP) : 1ea
- Relay : 4ea
- Time Relay(30sec) : 2ea
- Flicker Time Relay(6sec) : 1ea
- Counter : 1ea
- Proximity Sensor : 1ea
- Lamp(Green:2ea, Red:2ea) : 4ea
- Buzzer : 1ea
- Push Button Switch(Non-Lock, Green:2ea, Red:2ea) : 4ea
- Toggle Switch : 4ea
- Emergency Switch : 1ea
- Three-Phase Induction Motor : 1ea
- Fuse Holder & Fuse (5A) : 2ea
- DC Power Output : 3set

CPS-3300S — PLC Trainer

CPS-3300S is specially designed to process hands-on PLC operating for automatic-system such as programming practice, FMS, etc enabling to set input/output condition via various simulation. The number of input/output terminal of Demonstration system consist of 48 of input and 48 of output and 32 points of input/output is connected to 2 of input module and 2 of output module each. And 1 of Input module is connected to 16 points of input switch and 16 points of output simulation Light (DC 24V) is connected to 1 of output module.

FEATURE

- PLC(programmable Logic Control) principals and theory learning
- PLC programming practice
- Ladder Diagram and object experiment
- Output control practice by input signal
- Analog to digital control practice
- LAMP, LED, Buzzer, Motor control practice
- Automation equipment and external equipment control practice

Configuration of PLC unit (Master-K300S)

- Power module: 1ea
- CPU module: 1ea
- Input module (16 points): 3ea
- Output module (16 points): 3ea
- Dummy module: 2ea
- PLC base (8 slot): 1ea

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CPS-SK4300

Factory Automatic Control Training System

CPS-SK4300 is an integrated system of control and measurement technology, communication technology, and network operating technology. CPS-SK4300 is widely used at schools and companies, gaining a good popularity and educational effects. This system was designed according to the parts which are actually used at the fields.

FEATURE

- Understanding of X, Y, Z axis simultaneous control rectangular coordinate robot mechanism and its applicable design experiment
- PLC control design education of factory automatic control system
- PC monitoring and R/C program design education by HMI program
- Object moving experiment and conveyer control experiment by pneumatic mechanism
- 2 axis Servo drive control experiment by location decision module
- Precision Servo control experiments and practice
- Various sensor control experiments and practice
- Communication fixing practice by Ethernet module

MAIN CONFIGURATIONS

- Operation Table
- Intelligent PLC Unit
- Servo drive unit
- Demonstration System
- Terminal Unit
- FA Servo Robot
- FA Plant
- Pneumatic Control Unit
- HMI tool

CPE-PN2100

Mechatronics Pneumatic Control Trainer

FEATURE

- Consisted of various kinds of electric pneumatic components.
- Possible to practice by Relay and PLC.
- One-touch button and separable by fixing parts with lever type.
- Effective space use by the vertical and horizontal direction change.
- Providing various optional modules.
- Application practice of various air pressure components for FMS.
- Effective electric sequence control by total electric sequence control unit
- System size : 900(W) × 1,550(H) × 750(D)mm

MAIN CONFIGURATIONS

- Pneumatic single-sided table: 1ea
- Pneumatic single-sided experiment panel: 1ea
- Total electric sequence control unit: 1 set
- Low-noise air compressor: 1ea
- Air service unit & distributor: 1ea
- 5/2-Single solenoid valve: 3ea
- 5/2-Double solenoid valve: 3ea
- 3/2-Single solenoid valve: 2ea
- Double acting cylinder: 3ea
- Single acting cylinder: 1ea
- Electric limit switch: 8ea
- AND(2-Pressure) valve: 2ea
- OR(shuttle) valve: 2ea

CHUNGPA CHUNGPA EMT CO., LTD.

Electric & Electronic Measuring Device, Automatic Control

CP-S110

Solar Generating System

FEATURE

- Real-time educational training system.
- Designed to enable the user to understand the principal of solar generation, solar cell, power converter, and solar generation system and to make experiments of solar generating structure and operation.
- Designed to enable the user to use easily as system diagram is attached with voltmeter and ammeter on every measurement area

CP-WS300

Wind & Solar Generating Trainer

FEATURE

- Designed for the easy experiment and practice, as a wind and solar generating system.
- Software can be linked with of Wind Generating
- Trainer and the user can monitor data such as the output current and power of temperature, wind speed, wind generating, solar generating, battery voltage, load current, and etc.

ISO / ISOS Series

Digital Supersonic Cleaner

ISO / ISOS Series has the functions of digital timer, temperature control, and cleansing power and shows temperature and remaining time. ISO / ISOS Series is so reliable that the user is able to use this cleaner repeatedly as it has UltraBLT vibrator. ISO / ISOS Series is very effective and semi-permanent in its life as it has a silicone heater. And this cleaner has a good design and is made by the skills of high technological plastic mold injection.

FEATURE

- Supersonic cleansing function
- Perfect cleansing
- Powerful ultra BLT vibrator
- One-touch system
- In research centers, school laboratories, hospitals
- For industrial machines, automobile parts, jewelry

Address : No.906 Daeryoong Technotown 6th, #493-6 Kasan-Dong, Kumcheon-Gu, Seoul, Korea
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ED-7270 INTELLIGENT EDUCATION ROBOT PLATFORM

UROBO
Intelligent Education Robot Platform

FEATURE

- Suitable for Ubiquitous and Home Network based experiments
- User friendly design and dialogue-type language (program)
- Compact sized, long lasting next-generation battery (Lithium Ion)
- Grasp of the artificial intelligence robot and step-by-step experiments
- Visual processing practices using Pan/Tilt USB camera
- ZigBee, RFID functions for various services
- Home security experiments utilizing an unattended watchman function
- Dimension : 420(W) × 700(H) × 200(D)mm

ED-7272 MULTI-BASED EDUCATION PLATFORM

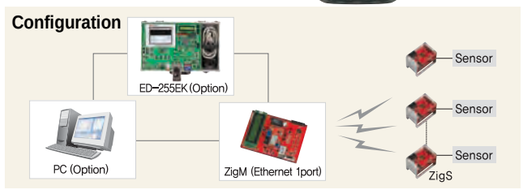
iRoed
Intelligent Robot for Education

FEATURE

- Real-time remote control through Wireless Network
- Robot application experiments using visual communication and processing
- Detection of obstacles using ultrasonic and infrared distance detection sensors
- USB Camera & USB High Speed(480Mbps) Interface
- Home security experiments utilizing an unattended watchman function
- The robot can be integrated with 5-Joint Arm as a whole system (Option)
- Dimension : 570(W) × 260(H) × 340(D)mm

ED-7271 ROBOT ASSEMBLY KIT TRAINER

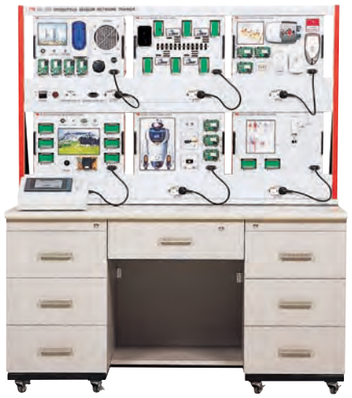
ED-3160 / ED-ZigNet-1 UBIQUITOUS SENSOR NETWORK TRAINER



FEATURE

- The RFID Card Reader is supplied as a standard shipped component for applied experiments on security, home automation and robot
- ZigBee Network can be built using TinyOS, F8WOS
- Easy build of the USN control system by the Mote expansion
- Control and monitor through Ethernet
- 10 types of basic sensors (standard shipped components) & additional 7 types of sensors (options)
- The optional Embedded system (ED-255EK) can be linked as a Gateway

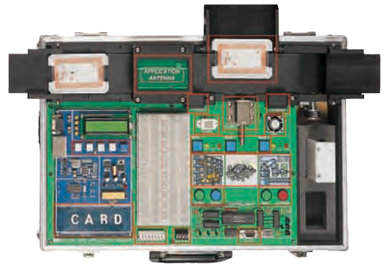
ED-3120 / ED-ZigNet-2 UBIQUITOUS SENSOR NETWORK TRAINER (MODULE TYPE)



FEATURE

- Fundamental and concept of the Ubiquitous Sensor Network, ZigBee(IEEE 802.15.4) System
- TinyOS and various types of sensors for the management of building, home automation, environment, robot and health (illumination, temperature, humidity, gas, ultrasonic wave, pyroelectric)
- PC interface and Monitoring on Touch Panel
- Mobile SMS reception (through PC) of a warning information on fire or gas leakage

ED-3100 RFID APPLICATION TRAINER



FEATURE

- F/W program practices for RFID Reader
- Various types of test point for Air-interface experiments
- OCX Library useful for application engineers
- 13.56 MHz I-CODE type in common usage
- Capability of reading and writing data on Tag
- Mini-Plant interlocked with conveyor (management of warehouse, process, parking lot, etc)

ED Co.,Ltd.

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E-mail : trade@ed.co.kr URL http://www.ed.co.kr

HO-AnyHome 1000 — Home Network System Trainer

FEATURE

- HO-AnyHome 1000 is based on Ubiquitous concept.
  It uses ZigBee and PLC(Power Line Communication) as Protocol of PAN(Personal Area Network).
  This education system is really different from existing products with wire communication.
- HO-AnyHome 1000 gives the practices and theories about Home Network System.
- Students learn how to design and realize the Home Network System based on Ubiquitous concept.

HO-Nano 24XC — Sensor Network Trainer

FEATURE

- HO-Nano24XC USN(Ubiquitous Sensor Network) trainer enables Students to construct a wireless PAN(Personal Area Network) with Nano-Qplus or TinyOS
- EZ-ESTO Zigbee IDE (Integrated Development Environment) software based on Eclipse
- HO-Nano24XC contains 10 Zigbee main modules and each of them can be connected to sensor module or actuator module
- Nano24 EDU main modules designed for low power consumption and operated by AA Size battery
- Temperature sensor, humidity sensor, CdS photo sensors and RTC are basically mounted on the main module.
- Provide exercise programs, experimental manuals through plentiful USN system development experience

HI-Any RFID V2.0 / HI-Any RFID V1.0 — RFID System Trainer

HI-Any RFID V1.0
(RFID & USN System Module)

FEATURE

- A student can learn basic skills of RFID and its application technologies
- Study about RFID theory and practice by this RFID system trainer
- RFID application is possible by provided hardware and software API in various fields of industry
- Divided into 5 sections
  (RFID diagram, RFID antenna, RFID Reader, operation status and breadboard section)
- Indicate the status of RFID reader in RFID diagram section
- 2 different size antennas equipped in RFID antenna section to practice antenna characteristics
- Equipped with breadboard, applied programs are realized in breadboard section

H.I SYSTEM Co., Ltd.
www.hi-sys.co.kr

Electric & Electronic Measuring Device, Automatic Control

HO-Any LETOK-X255 / HI-Any PXA270B — Embedded Linux Trainer

Xscale(PXA255)

Xscale(PXA270B)

FEATURE

- Intel Xscale PXA255 & 270B are adopted, which are applicable to mobile communication.
- Equipped with large Memory space such as Flash Memory of 32MByte and SDRAM 128Mbyte, various applications can be realized.
- Multimedia application can be easily realized with 6.4 inch color TFT LCD. Touch screen also provided, mouse may be redundant device like PDA.
- Powerful Sound functions can be programmed with a stereo CODEC.
- Two 10/100Mbps Ethernet ports supplied, various network programs can be practiced. Besides, built-in 4 USB Host Ports are on board.
- Practices about logic circuit and Soc development through 120,000-Gate FPGA extension module supplied optionally, Practices for Logic Circuit and SoC can be processed(option)

HI-AnyNET 8051 / 196 Combo V7.0 — Multi-Embedded Network & Microprocessor Trainer

HI-Any 51 Combo

HI-Any 196 Combo

FEATURE

- Various Experiments such as Network-Based Remote Control and conventional Microprocessor
- Dual Booting Modes (Conventional Microprocessor and Embedded Network)
- Any-NET Combo is Network-Based Control Trainer used for Microprocessor Experiments and Data Communication through internet
- Support Source Codes, Schematic Diagrams, and so on
- Used for the Target Board of Protocol Analyzer
- Support Self-made Stand Alone Web Server, and Remote Control through Network
- Various Peripheral Devices - Digital Input/Output Port, D-Matrix LEDs, DC/Stepping Motors, LCD, FND, Audio, Key-Matrix, A/D, D/A, Sensors for Home Automation
- Replacement of MCU Modules is very easy, since AnyNET is divided into 2 Modules such as MCU Module, Network Module, and Periphierals
- Networking Program coded by Visual Basic/Visual C++/Java Languages

HI-CNA — Network Trainer

FEATURE

- Computer network Trainer HI-CNA will provide PC network and LAN/WAN basic concept, component, operating skill and introduction of LAN/WAN for experiment
- Textbook considered of experimental amount of 10 weeks
- Analyze Self-Composed Network through Protocol Analyzer.
- Fundamental and Applied Practices dor Embedded Network and Microprocessor.
- Each Network Component is assembled or disassembled with each module.

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E-mail : sales@hi-sys.co.kr URL http://www.hi-sys.co.kr

HI-AnyNET V9.0 — Multi One-Chip Microprocessor Trainer

FEATURE

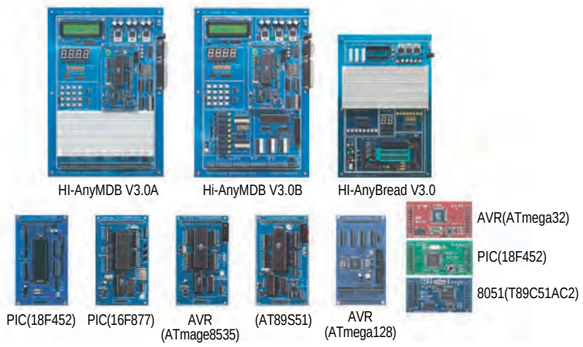
- 8 Kinds of One-chip MCU (89S51, ATmega8535, ATmega128, PIC16F877, 18F452, T89C51AC2, ATmega32) are used for experiment, respectively
- Replacement of MCU Modules is very easy, since AnyNET is divided into 2 Modules such as MCU, and Periphierals.
- AnyNET is appropriate for Electronic, Communication, Electricity, and Mechatronics
- Various Peripheral Devices - Digital Input / Output Port, Dot-Matrix LEDs DC/Stepping Motor, RC Servo Motor, LCD, FND, Audio, Key MAtrix, A/D, D/A, Sensors for Home Automation, Relay, 4 ø Terminal to External
- Pneumatic/Hydraulic and Factory Automation Equipments controllable by MCU connected with 4 ø Jack
- Abundant Source Codes, Schematic Diagrams, and so on

HI-Any Sensor V1.0 / HI-Any Lab V1.0 — Multi One-Chip Microprocessor & Sensor Trainer

FEATURE

- HI-AnyNET V9.1 (Multi One-chip microprocessor trainer) designed 8 kinds of One-chip microprocessors are used for experiment, each
- HI-AnyNET V 9.1 is suitable for training system in Electronics, Electricity and Information Technology
- Sensor training is available together with optional 8 sensor modules and the model of this combined system is HI-AnySensor V1.0 (HI-AnySensor V1.0 = HI-AnyNET V9.1 + 8 Sensor Modules). 8 sensor modules contain 27 kinds of sensor
- PC Interface Sensor Trainer (HI-Any Lab V1.0 + 8 Sensor Modules)

HI-AnyMDB V3.0A,B / HI-AnyBread V3.0 — Multi One-Chip Microprocessor Trainer



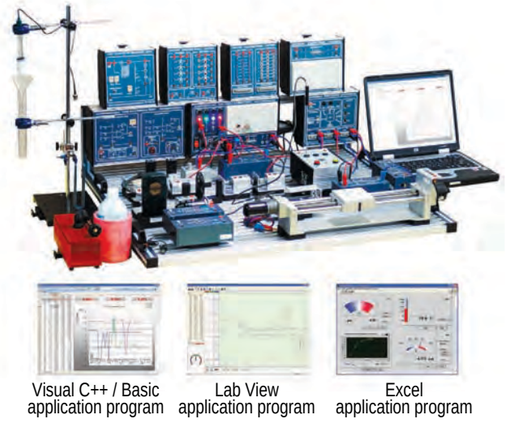
FEATURE

- Support 8 Kinds of MCUs (89S51, ATmega8535, ATmega128, PIC16F877, 18F452, T89C51AC2, ATmega32)
- Operation Software is included in many kinds of Compiler Packages
- Breadboard or Digital I/ O with Relay and PPI Expansion (User Selectable)
- Abundant Source Codes, Schematic Diagrams, and so on

H.I SYSTEM Co., Ltd.
www.hi-sys.co.kr

Electric & Electronic Measuring Device, Automatic Control

HF-1200 — Fusion Sensor System Trainer



FEATURE

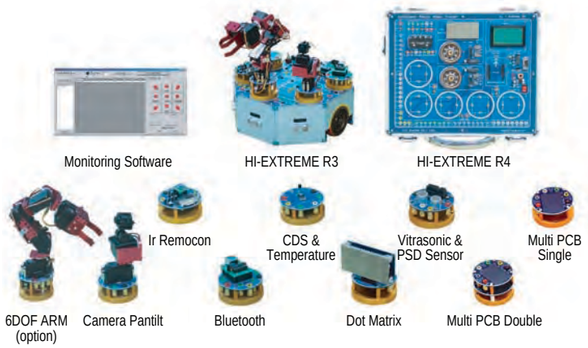
- Fusion Sensor System Trainer HF-1200 consist of various sensor modules used in various field of industries
- Measure 3 sensor's signal at the same time on PC through USB interface
- 3 kind of measurement software provided (VBA, Visual C++, LabVIEW)
- Experimental modules can be easily fastened on working board

HI-EXTREME R1 — Multi-Robot System Trainer

FEATURE

- Best experimental item of Microprocessor Applications
- 3 Functions - Micro Mouse, Line Tracer, RC Soccer Robot
- Support 3 MCUs - 89C51AC2, ATmega32, PIC18F452
- Program update is very easy through ISP(In System Programming) Function
- Low Battery Warning, RF Data Communication, Programming with C-Language

HI-EXTREME R3 / HI-EXTREME R4 — Intelligent Mobile Robots System



FEATURE

- Intelligent mobile robot HI-Extreme R3 is composed of mobile robot base and 3 control modules.
- Robot base contains 3 PSD sensors, 3 ultrasonic sensors for detecting distance and position respectively. 2 DC servo motors with aluminum wheels make this intelligent mobile robot run to any direction you want. Hence, you can make auto-navigation robot.
- Wireless camera (2.4GHz, 1/3" CMOS color), Ir receiver and Bluetooth communication modules provided, this robot can be controlled by Bluetooth and IR communication methods. Stepping motor and Robot Arm module are provided optionally.
- HI-Extreme R4 is Intelligent Robot Trainer which divided HI-Extreme R3 into each module.

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E-mail : sales@hi-sys.co.kr URL http://www.hi-sys.co.kr

FP-100 series

Pneumatics training kit

FEATURE

- The pneumatics training kit is composed of various industrial pneumatic parts. All the parts are adopted one-touch mounting clamp so that you can easily attach it and make a pneumatic circuit. Pneumatic training package is consist of FP101, FP102, FP201 and FP202.
  FP101 is for basic level of pneumatics and FP102 is for advanced level. FP201 and FP202 are electro-pneumatic training packages. FP201 is for basic level and FP202 is for advanced level.

FH-100 series

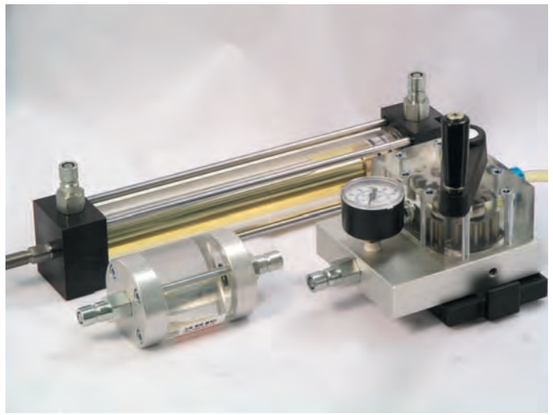
Hydraulics training kit

FEATURE

- The hydraulics training kit is composed of various industrial hydraulic parts. All the parts are adopted one-touch mounting clamp so that you can easily attach it and make a hydraulic circuit. Hydraulic training package is consist of FH101, FH102, FH201 and FH202.
  FH101 is for basic level of hydraulics and FH102 is for advanced level. FH201 and FH202 are electro-hydraulic training packages. FH201 is for basic level and FH202 is for advanced level.

FH-230

Hydraulics transparent models



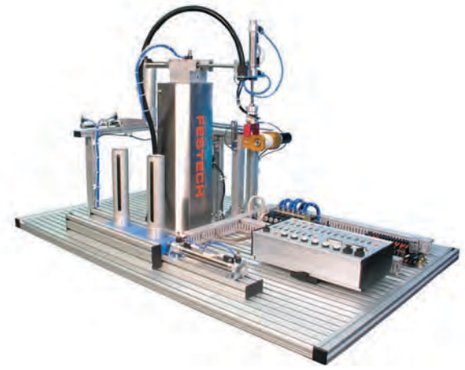
FEATURE

- FH230 is a set of transparent hydraulic model to learn the basic principle of hydraulics. You can easily design a hydraulic circuit by connecting quick connectors. Usually, it can be operated on the OHP to show the flow of hydraulic oil and mechanical movement of a valve and cylinder.

FESTECH FESTECH CO.,LTD.

FPLC-PTP-ROB-TK

PTP training kit



FEATURE

- position decision function
- DC motor and conveyor
- pneumatic gripper and cylinders
- solenoid valves and relay
- operating box for manual and automatic control
- Any kind of controller is possible for example PLC, microprocessor and VLC a brand-new PC-based controller.

FPLC-EP-ELE-TK

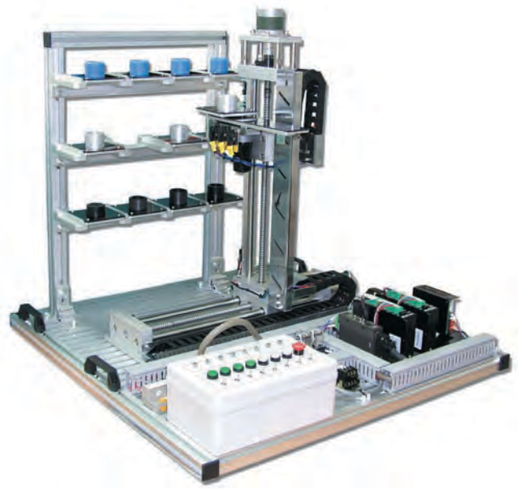
Elevator training kit

FEATURE

- simulated elevator training kit
- 3 floors(standard)
- DC geared motor with a balance weight
- 4mm wiring socket for external control
- strong poly carbonate transparent fence
- 4 casters for easy movement
- Any kind of controller is possible for example PLC, microprocessor and VLC a brand-new PC-based controller.

FPLC-AS/RS-TK

AS/RS training kit



FEATURE

- Automatic Storage / Retrieval System
- 2 stepping motors(X and Y axes)
- powerful stepping motor driver
- 3 type of work pallet
- user operating panel(option: touch)
- Any kind of controller is possible for example PLC, microprocessor and VLC a brand-new PC-based controller.

Address : 706, Daerung technotown 5, Gansan-dong, Geamcheon-gu, Seoul, Korea
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E-mail : festech@festech.co.kr URL http://www.festech.co.kr

CO_2 Sensor Module

Model	KCD-AN		
Storage temperature	-40~70℃		
Dimensions (Length×Width×Height)	82mm × 44.5mm × 18 mm		
Weight	< 30g		
Sensing Method	Dual Wavelength NDIR		
Measuring ranges	0~2000ppm, 0~5000ppm, 0~10000ppm		
Operating Temperature	0~50℃		
Operating Humidity	0~95%RH (Non-condensing)		
Power supply (rectifiered)	8 ~14VDC		
Power consumption	30mA(Average)		
Resolution	@PWM Output(~2,000ppm)	2ppm	
	@UART communication	1ppm	
Analog Outputs	0(1) ~4 VDC		
Digital Outputs	Low	0 ~0.3V	
	High	4.75~5.25V	
Applications	• Environment management system • Indoor ventilation system • Air conditioning system • Securing devices of combustors		

CO_2 Sensor in Harsh Environment

Model	KCD-HP		
Measurement	Sensing Method	Dual Wavelength NDIR	
	Measuring ranges	1%, 10%, 20%	
Operating Conditions	Temperature	5 ~45℃	
	Humidity	0~95%RH (Non-condensing)	
Electrical	Power supply (rectifiered)	24VDC ±20%	
	Power consumption	70mA average	
Outputs	Analog Outputs	0 ~10VDC or 4~20mA	
	Communication	RS485	
Dimensions	1% Probe	Φ43 x 161mm	
	10%, 20% Probe	Φ43x 91mm	
Applications	• Test facilities • Cell incubators • CO_2 Chambers • Environment controlling system • Environment monitoring system		

Data Logger

Model	KDL-5000		
General	Data memory	512 kByte	
	Display	320(240 dots, 4 inch positive FSTN	
Measurement	Sampling interval	0~2.5V, 16bit Resolution	
	Measuring range options	0~2000ppm, 0~5000ppm, 0~10000ppm	
Operating Conditions	Temperature	0~40℃	
	Humidity	30~80% RH	
Electrical	Power supply	12V DC 1A adapter or Internal rechargeable battery pack	
Dimensions	Length×Width×Height 170mm×140mm×38 mm		
Features	• 3 flexible input channels(Collecting Data from 12 sensors at the same time) • Auto Data Backup • Automatic identification of sensors		

KOREA DIGITAL CO., LTD.

Electric & Electronic Measuring Device, Automatic Control

CO_2 & Temp. Controller

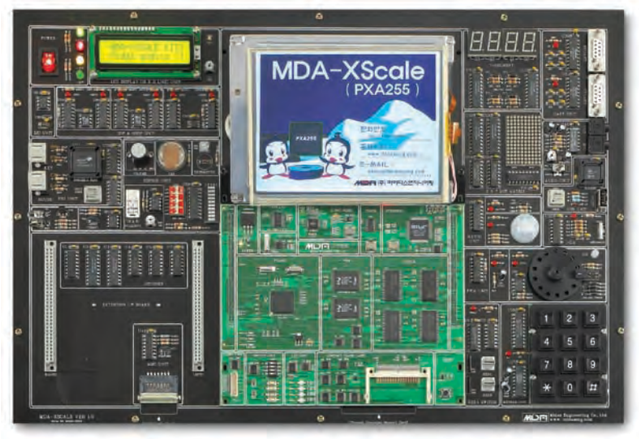
Model	KCD-DA		
General	Storage temperature		-40~70℃
	Dimensions(Length×Width×Height)		123mm×80 mm×29 mm
Measurement	Sensing Method	CO_2	Dual Wavelength NDIR
		Temperature	NTC 103AT
		Humidity (Optional)	Semiconductor HTH-3610-02
		VOC (Optional)	Semiconductor gas sensor
	Measuring range options	CO_2	0~2000ppm, 0~5000ppm, 0~10000ppm
		Temperature	-10~60℃
		Humidity	0~99% RH
		VOC	1 ~ 10 Level
Operating Conditions	CO_2, Humidity,VOC	Temperature	0~50℃
		Humidity	0~95%RH (Non-condensing)
	Temperature	Temperature	-10~60℃
		Humidity	0~95%RH (Non-condensing)
Electrical	Power supply		24V AC/DC (< ±20%)
	Power consumption		70mA average
Outputs	CO_2		0~10VDC or 4~20mA , PWM or On/Off / Relay SPST / RS485
	Temperature, Humidity		0~10VDC or 4~20mA
Applications	• Environment management system • Indoor ventilation system • Air conditioning system • Securing devices of combustors		

CO_2 & Temp. Indicator

Model	KCD-2000		
Measurement	Sensing Method	CO_2	Dual Wavelength NDIR
		Temperature	PT
	Measuring ranges	CO_2	0~2000ppm, 0~5000ppm, 0~8000ppm, 0~10000ppm
		Temperature	-10 ~ 50℃ (14 ~ 122℉)
Operating Conditions	Temperature	0~50℃	
	Humidity	0~95%RH (Non-condensing)	
Electrical	Power supply	9V DC 1.5A external adapter	
Outputs	Relay SPST / Buzzer / RS485		
Dimensions	Width × Depth × Height	460mm × 220mm × 40 mm	
Features	• Auto Controlling the connected system • Monitoring and saving CO_2 level at remote sites through RS485 • Monitoring indoor CO_2 level and temperature • Check the degree of indoor air pollution • Reserve clean indoor environments by connecting with ventilation system • Auto changing the brightness of dis-play depending on indoor illumination		

Address : #804, Ace Twin Tower 2, 212-30, Guro 3-dong, Guro-gu, Seoul, KOREA
Phone & Fax : Phone (+82-2-2109-8877) Fax (+82-2-2109-8878)
E-mail : info@koreadigital.com URL http://www.koreadigital.com / www.sensecube.com

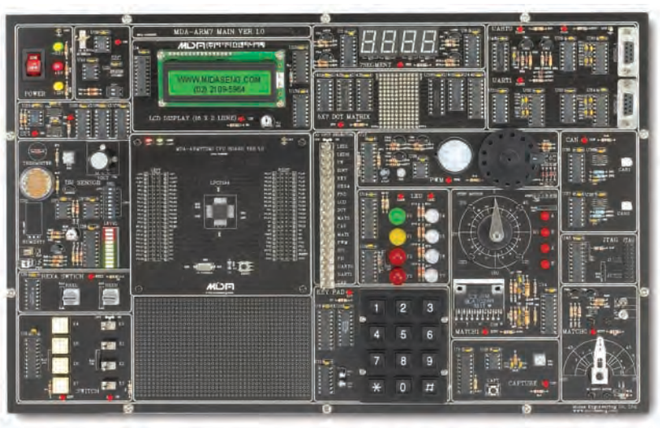
M DA-PXA255 Embedded XScale Trainer



FEATURE

- Processor : XScale PXA255
- Flash Memory of 32MBytes, and SDRAM of 128MBytes, applied programs are realized in the plentiful memory environment.
- The Kits are normally supplied with Linux, WinCE.NET
- Support XScale, SoC, and FPGA
- Provide PCMCIA 1 slot for wireless network environment.
- 10/100Mbps Ethernet
- AC97 Audio Codec
- 6.4″ TFT LCD colour display
- Debugging with JTAG
- Read and Write to Flash Memory with JTAG
- Expand IO module
- Providing Development environments and source on windows98/XP platform.

M DA-ARM7 Embedded ARM7 Trainer



FEATURE

- Processor : LPC2194(16/32Bit ARM7/TDMI-S)
- ARM7TDMI core processor
- ISP method(using serial port)
- Removable CPU top board.
- select IO device with switches
- Provide source(GCC Compiler)
- SPI, I2C, CAN Communication
- Expansion connector
- RTOC porting and experiment
- Included bread board

MIDAS ENGINEERING CO., LTD.
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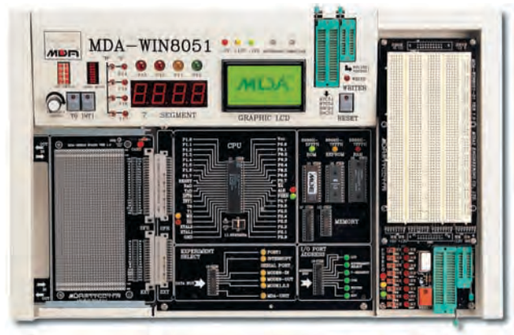
Phone & Fax : Phone (+82-2-2109-5964) Fax (+82-2-2109-5968)
E-mail : midas1@midaseng.com URL http://www.midaseng.com

Electric & Electronic Measuring Device, Automatic Control

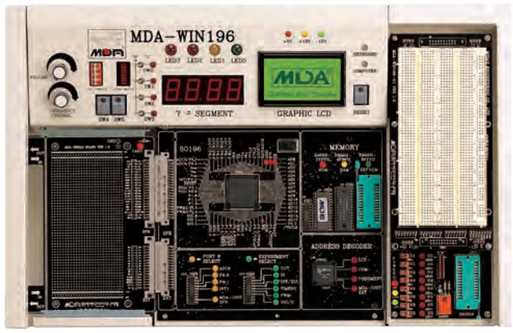
M DA-Win8051 Windows Emulation 8051(8Bit) Trainer



FEATURE

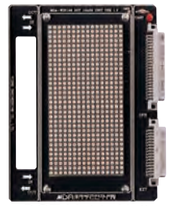
- Micro-Controller : 8051(80C51)
- Studio-51 Program : Applications can be developed and run entirely on the board itself.
- Program start address : 0000H
- Support 8051(80C51), 8031, 8751, 89C51, 8052, 89C52, 80C320 and 80C550
- support 4serial ports.
- Various I/O and interrupt experiments.
- Extended Unitss(D/A converter, A/D converter, DC Motor, Step Motor, Dot Matrix, Relay and Bread board)
- Application board experiments using the SFR, EXT connector.
- Graphic LCD display(128 × 64 dots)
- Display CPU status on LED.

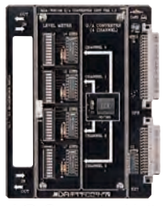
M DA-Win196 Windows Emulation 80C196KC(16Bit) Trainer



FEATURE

- Micro-Controller : 80C196KC
- Studio-196 Program : Applications can be developed and run entirely on the board itself.
- Program start address : 2080H(Reset vector)
- Support 4serial ports.
- Various I/O and interrupt experiments.
- Extended Unitss(D/A converter, A/D converter, DC Motor, Step Motor, Dot Matrix, Relay and Bread board)
- Application board experiment using the SFR, EXT connector.
- Graphic LCD display(128 × 64 dots)
- Display CPU status on LED.
- EEPROM 28C256 Read, Write, Verify and Erase.

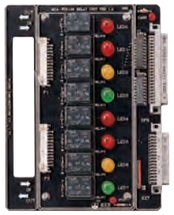

DOT Matrix Unit


A/D Converter Unit

D/A Converter Unit

DC Moter Unit

Step Moter Unit


Relay Unit

Expansion Unit(Win8051, Win196)

- MDA-Optical COM Unit
- MDA-RS-232C/485 Unit
- MDA-Calculator Unit
- MDA-Ultra Unit
- MDA-Clock Unit
- MDA-D/A BLM Unit
- MDA-Dice Unit
- MDA-D/A Speaker Unit
- MDA-Dot 8 x 16 Unit
- MDA-V/F Converter Unit
- MDA-FND Unit
- MDA-R/2R A/D Unit
- MDA-Traffic Unit
- MDA-R/2R F/V Unit
- MDA Key Board Unit
- MDA-Int. ADC Sensor Unit
- MDA-Peripheral Unit
- MDA-AC FAN Unit
- MDA-IrDA COM Unit
- MDA-Power Unit

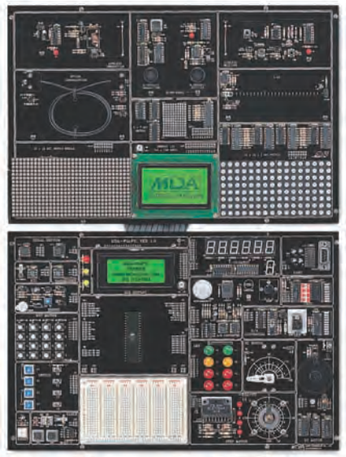
M DA - WinAV R

Windows AVR Trainer

- Micro-Controller : ATmega8535
- Include AVR(ISP method) Writer
- Various Input devices experiments.
- Dot matrix(16 * 32, 8 * 16) experiments.
- Graphic LCD(128 * 64) experiments.

M DA - WinPIC-2

Windows PIC Trainer



- Micro-Controller : PIC16F874 or PIC16F877
- Operate the DOT Matrix(16 * 32, 8 * 16) Display.
- Graphic LCD experiments(128 * 64Dots)
- 7-Segment, Serial EEPROM, Step Motor, DC Motor, Melody IC experiments.
- RS-232C Communication with PC.

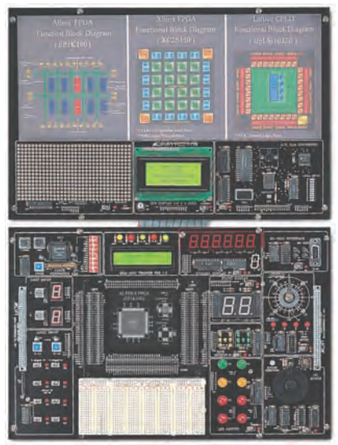
M DA-iRTC

Embedded Communication Trainer

- Connect to your ethernet port.
- Control all application units on PC.
- Exchangeable microprocessor top board.(8051, 80196, MC68000, PIC, AVR and etc)
- Web Server, Telnet Server and TCP control.
- Included 5-port switching HUB.

M DA-ASIC-2

ASIC(CPLD, FPGA) Trainer



- Exchangeable topboard.(Xilinx, Lattice, Altera, Atmel, etc)
- Seloct FPGA or CPLD
- Asics are designed using a suit of computer aided software programs.(Verilog-HDL, VHDL)
- Download method by PC' s parallel port.
- EEPROM wirter for FPGA(Auto selected by PC' s parallel port)
- Support the continuous pulse for the digital circuit(Pulse selector:signal, 1Hz~50MHz)

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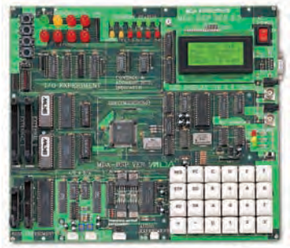
M DA-DSP

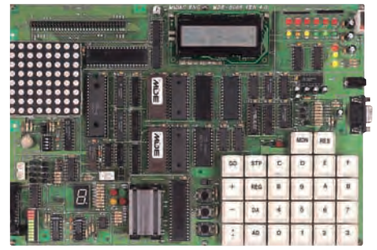
DSP TMS320C50



- Micro-Controller : TMS320C50
- Display the TMS320C50 internal architecture
- Direct input to machine language.
- LCD display function use to key-board.
- LED display of current system bus status.

M DA-8086

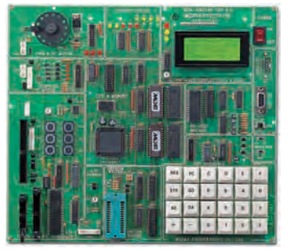
16Bit Processor 8086 Board



- CPU : 8086
- Program debugging function by PC.
- Program download and trace function.
- Display the register contents.
- Memory contents modification dump function.

M DA-EMS196

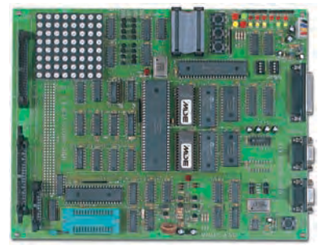
16Bit Micro Controller 80C196KC Emulation Board



- CPU : 80C196KC
- Display the 80C196KC internal architecture.
- Edit, Assemble, Compile, l Download and program run of source file.
- C-language, Assembly language source code debugging functions.
- Program scroll display function.

M DA-68000

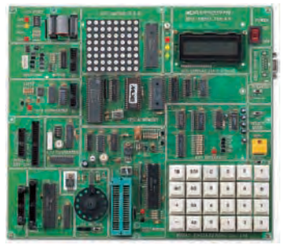
16Bit Processor 68000 Board



- CPU : Motorola MC68000
- RS-232C Communication.(Terminal mode and Host mode)
- Download and Upload function.
- Program/Data memory contents.
- ROM writer function.

M DA-EMS51

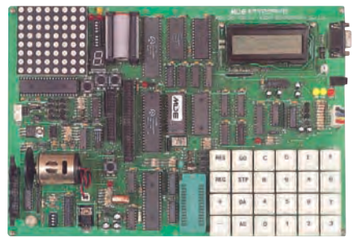
8Bit Processor Emulation 8051 Board



- Display the 8051 internal architecture.
- Edit, Assemble, compile, download, and program running of source file.
- C-language, Assembly language source code debugging function.
- 8051 Register, internal/eternal memory dump and editing funtion.
- 8751, 87C51, 89C51 writing function.

M DA-Z80

8Bit Processor Z80 Board



- CPU : Z-80
- Program debugging function by PC.
- Memory contents Modification and dump function.
- Program download and disassemble.
- 16 * 2 Lines LCD display function.

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